

**APPENDIX B
APPLICATION REQUIREMENTS.**

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B-1. GENERAL PROVISIONS.

- The Administrator shall promulgate submittal requirements, instructions for completing forms, and internal procedures for acceptance and filing of applications. Additional information may be required for particular applications. Necessary forms for all applications for:
 - administrative permits;
 - applications for board of adjustment review;
 - applications for planning board review; and
 - applications for Town Council review.

- All such forms/applications shall be shall be maintained at the office of the Administrator.

B.2. MAJOR SUBDIVISION PLAT.

- ***General Requirements.***

- Preliminary Plat - The subdivider shall submit twenty-five (25) folded copies of a preliminary subdivision plat to the Planning Department for processing and referral to affected agencies along with the appropriate subdivision plat review fee and application. One mylar should be submitted after approval has been granted by the Planning and Zoning Board and all conditions placed on the plat have been satisfactorily met. Preliminary plats shall be prepared by a professional landscape architect, professional engineer, and/or registered land surveyor.
- Final Plat – Once the Town Engineer or their designee has deemed the project to be substantially complete, the subdivider shall submit five (5) folded copies with the appropriate subdivision review fee. If a Subdivision Improvement Agreement (letter of credit, cash escrow or surety bond) is required, the subdivider shall submit all required information with application. Two mylars should be submitted after approval has been granted. Final plats shall be prepared by a professional landscape architect, professional engineer, and/or registered land surveyor.
- Construction Plans - The subdivider shall furnish the Town Department ten (10) copies of all construction plans and specifications, prepared and endorsed by a certified professional engineer, licensed as such by the State of North Carolina. The construction plans shall delineate and describe in complete detail all aspects of grading, clearing, drainage and physical improvements proposed both on and off-site, as required in relation to the proposed subdivision.

- ***Requirements for a Sketch Plan.***

- Sketch plans shall be drawn to a convenient scale of not more than one hundred (100) feet to an inch. Supporting information required by this section may allow for a larger scale.

- ***Contents required.***

- 1) Type of development.
- 2) Name, address, and telephone number of developer and designer.
- 3) Graphic and written scale.
- 4) Proposed name of subdivision.
- 5) Current Zoning and district lines.
- 6) Total acreage of the site.
- 7) Total number of proposed lots/units and the approximate location and dimensions of all proposed or existing lots.
- 9) The approximate location, dimensions, and area of all parcels of land proposed to be set aside for park or playground use or other public use, or for the use of property owners in the proposed subdivision.
- 10) Whenever the sketch plan covers only a part of an applicant's contiguous holdings, the applicant shall submit, the proposed subdivision or development area, together with its proposed utilities and street

system, and an indication of the probable future street system, and an indication of the probable future utilities and street and drainage system of the remaining portion of the tract.

11) Approximate topography.

12) Existing utilities available to the site and preliminary proposals for connection with existing water supply and sanitary sewage systems, or alternative means of providing water supply and sanitary waste treatment and disposal; preliminary provisions for collecting and discharging surface water drainage.

- ***Requirements for Preliminary Plat***

- No specific size requirements apply to preliminary plats. Preliminary plats shall be prepared at a scale of one (1) inch equals one hundred (100) feet, or a scale for which one (1) inch equals a distance less than one hundred (100) feet. The preliminary plat shall be prepared by a registered land surveyor and shall depict or contain the information set forth below. Incomplete plans shall be returned to the subdivider without further review until revised and resubmitted, provided, however, that engineering plans required as set forth in Section 301.42 may be submitted after approval of a preliminary subdivision plat by the planning and zoning board when such approval is made subject to the submission of said engineering plans and approval of same by the director of engineering and water resources and/or the director of electric systems.

- ***Contents required.***

1) Legend--Title and revision number;

2) Location map showing relationship of subdivision to the city and surrounding area;

3) Tract boundaries shown by a heavy line including all bearings and distances;

4) Existing and proposed property lines, any structures, water courses, railroads, bridges, culverts, and storm drains on the tract and on adjoining property within 100’;

5) Lot lines and scaled dimensions, lot numbers;

6) Proposed street names, right-of-way and pavement widths, and typical cross-sections;

7) Existing streets on subject and adjoining properties including right-of-way and pavement width;

8) Proposed easements or rights-of-way other than for streets (e.g. for drainage, storm water detention, utilities, pedestrian ways, buffers); location, width and purpose;

9) Zoning classification and district lines on the tract and adjoining properties;

10) Names and PIN numbers of adjoining property owners and subdivisions both proposed and of record;

11) Site calculations, including:

(a) Total acreage,

(b) Number of lots in each phase,

(c) Total number of lots in the subdivision,

- (d) Acreage in lots,
 - (e) Acreage in street rights-of-way,
 - (f) Linear feet of each individual street, and
 - (g) Anticipated date of final platting;
- 12) The location and size of parks, school sites, open space areas, etc. and their ownership;
 - 13) Existing topography at a contour interval of two (2) feet;
 - 14) Boundaries of floodways and one hundred-year flood plains; and
 - 15) Proposed location of water, sanitary sewer systems.
 - 16) Building Setbacks (in table format).
 - 17) Proposed street names on the Street/Subdivision Name(s) Review Form. See Appendix C 4.2.15.

- ***Requirements for a Final Plat***

- *Contents required.*

- 1) Legend containing subdivision names, vicinity map, legal description including township, county and state, the date or dates of survey, the date of any revisions to plat, a north arrow and declaration, scale in feet per inch and bar graph, the name and address of the owner(s) and the name, address, registration number and seal of engineer and/or surveyor;
- 2) Exact boundary lines of tract in heavy line, full dimensions by lengths and bearings, and intersecting boundaries of adjoining lands;
- 3) Street names, right-of-way lines, pavement widths of tract and adjacent streets, and the location and dimensions of all easements;
- 4) Accurate descriptions and locations of all monuments, markers, and control points;
- 5) Location, purpose, and dimensions of areas to be used for other than residential purposes;
- 6) Sufficient engineering data to determine readily and reproduce on the ground every straight or curved boundary, street, and setback line including dimensions, bearings, or deflection angles, radius, central angles, and tangent distances for the center line of curved streets and curved property lines that are not the boundary of curved streets. All dimensions shall be measured to the nearest tenth and angles to the nearest minute;
- 7) Boundaries of floodways and one hundred-year flood plains;
- 8) Lots numbered consecutively throughout the subdivision;
- 9) The names of owners of adjoining properties;

10) Building Setbacks (in table format).

11) Site calculations, including:

- (a) Total acreage;
- (b) Total number of lots;
- (c) Acreage in lots;
- (d) Acreage in street rights-of-way;
- (e) Linear feet of each individual street;

12) The following certificates shall appear on all copies of the plat. Items (a) and (b) shall be signed when submitted. Items (c), (d), (e), and (f) will be signed when the plat is approved:

(a) *Certificate of ownership and dedication.*

I hereby certify that I am owner of the property shown and described hereon, which is located in the subdivision jurisdiction of the Town of Harrisburg, and that I hereby submit this plan of subdivision with my free consent, establish minimum building setback lines, and dedicate to public use all areas shown on this plat as streets, walks, parks, open space and easements, except those specifically indicated as private, and that I will maintain all such areas until accepted by the Town of Harrisburg, and further that I hereby guarantee that I will correct defects or failure of improvements in such areas for a period of one year commencing after a certificate of approval has been executed by the city, or after final acceptance of required improvements, whichever occurs later.

Owner

(b) *Certificate of Survey and Accuracy.*

I, _____, certify that this map was (drawn by me) (drawn under my supervision) from (an actual survey made by me) (an actual survey made under my supervision) (deed description, etc.) (other); that the error of closure as calculated by latitudes and departures is 1:_____; that the boundaries not surveyed are shown as broken lines plotted from information found in Book _____, Page _____; that this map was prepared in accordance with General Statute 47-30, as amended.

Witness my hand and seal this _____ day of _____, A.D., 19 _____

Surveyor or Engineer

License or Registration Number

(c) *Not Applicable – Certificate of electric distribution system approval.*

(d) *Certificate of streets, water and sewer system approval and other improvements.*

I hereby certify that all streets, storm drainage systems, water and sewer systems and other improvements have been designed and installed, or their installation guaranteed, in an acceptable manner and according to specifications and standards of Harrisburg and the State of North Carolina in the _____ Subdivision.

Date

Director of Public Works

(e) *Certificate of final plat approval.*

It is hereby certified that this plat is in compliance with the Subdivision Regulations of the Town of Harrisburg and therefore this plat has been approved by the Harrisburg Town Council, or their designated review committee, subject to its being recorded with the Cabarrus County Register of Deeds within 30 days of the date below.

Date

Director of Planning

(f) *Certificate of water and sewer connection fee payment. *Only applicable if receiving services through the City of Concord.*

I hereby certify that all water and sewer connection fees for the _____ Subdivision have been paid, or that the fees are not applicable since preliminary plat approval occurred prior to June 28, 1996.

Date

Finance Director

(g) *Plat Review Officer Certificate (as required by 47-30.2)*

State of North Carolina
County of Cabarrus

I, _____, Review Officer of Cabarrus County, certify that the map or plat to which this certification is affixed meets all statutory requirements for recording.

Review Officer

(h) *Statement of Active Open Space* (if applicable, see § 6.5.3.6.4) - Active open space improvements as defined in § 6.5.3.6.4 of the UDO shall be required for this plat and shall equal a total minimum financial investment of 200% of the pre-development tax value for the amount of dedicated land from the parcel from which the open space is being dedicated as required.

B.3. MINOR SUBDIVISION PLAT.

- ***General Requirements.***

- ***Final Plat*** - The subdivider shall submit five (5) folded copies of a minor subdivision plat or conveyance plat to the Administrator for processing, along with the appropriate subdivision plat review fee and application. If a Subdivision Improvement Agreement (letter of credit, cash escrow or surety bond) is required due to incomplete installation of utility extensions, subdivider shall submit all required information with application. Two (2) mylars should be submitted after approval has been granted.
- ***Construction Plans (if applicable)*** - If utility extensions are required, the subdivider shall furnish the Town Department ten (10) copies of all engineering plans and specifications, prepared and endorsed by a certified professional engineer, licensed as such by the State of North Carolina. The engineering plans shall delineate and describe in complete detail all aspects of grading, clearing, drainage and physical improvements proposed both on and off-site, as required in relation to the proposed subdivision.

- ***Requirements for a Sketch Plan.***

- Sketch plans shall be drawn to a convenient scale of not more than one hundred (100) feet to an inch. Supporting information required by this section may allow for a larger scale.

- ***Contents required.***

- 8) Type of development.
- 9) Name, address, and telephone number of developer and designer.
- 10) Graphic and written scale.
- 11) Proposed name of subdivision.
- 12) Current Zoning and district lines.
- 13) Total acreage of the site.
- 14) Total number of proposed lots/units and the approximate location and dimensions of all proposed or existing lots.
- 13) The approximate location, dimensions, and area of all parcels of land proposed to be set aside for park or playground use or other public use, or for the use of property owners in the proposed subdivision.
- 14) Whenever the sketch plan covers only a part of an applicant's contiguous holdings, the applicant shall submit, the proposed subdivision or development area, together with its proposed utilities and street system, and an indication of the probable future street system, and an indication of the probable future utilities and street and drainage system of the remaining portion of the tract.
- 15) Approximate topography.
- 16) Existing utilities available to the site and preliminary proposals for connection with existing water supply and sanitary sewage systems, or alternative means of providing water supply and sanitary waste treatment and disposal; preliminary provisions for collecting and discharging surface water drainage.

17) Proposed street names on the Street/Subdivision Name(s) Review Form, if necessary. See Appendix C 4.2.15 also.

- ***Requirements for a Final Plat.***

- *Contents required.*

- 1) Legend containing subdivision names, vicinity map, legal description including township county and state, the date or dates of survey, the date of any revisions to plat, a north arrow and declaration, scale in feet per inch and bar graph, the name and address of the owner(s) and the name, address, registration number and seal of engineer and/or surveyor;
- 2) Exact boundary lines of tract in heavy line, full dimensions by lengths and bearings, and intersecting boundaries of adjoining lands;
- 3) Street names, right-of-way lines and the location and dimensions of all easements;
- 4) Accurate descriptions and locations of all monuments, markers, and control points;
- 5) Sufficient engineering data to determine readily and reproduce on the ground every straight or curved boundary, street, and setback line including dimensions, bearings, or deflection angels, radius, central angles, and tangent distances for the centerline of curved streets and curved property lines that are not the boundary of curved streets. All dimensions shall be measured to the nearest tenth and angles to the nearest minute;
- 6) Boundaries of floodways and one-hundred-year (100-year) floodplains;
- 7) Lots numbered consecutively throughout the subdivision;
- 8) The names of owners of adjoining properties;
- 9) Building Setbacks (in table format).
- 10) Site calculations, including:
 - (a) Total acreage, and
 - (b) Total number of lots; and
- 11) The following certificates shall appear on the plat. Items (a), (b) and (c) shall be signed when submitted. Item (d) will be signed when plat is approved.
 - (a) *Certificate of ownership and dedication.*

I hereby certify that I am the owner of the property shown and described hereon, which is located in the subdivision jurisdiction of the Town of Harrisburg, and that I hereby submit this plan of subdivision with my free consent and establish minimum building setback lines.

Date

Owner

- (b) *Certificate of survey and accuracy.*

I, _____, certify that this map was (drawn by me) (drawn under my supervision) from (an actual survey made by me) (an actual survey made under my supervision) (deed description recorded in Book _____, Page _____, Book _____, Page _____, etc.) (other); is 1: _____; that the boundaries not surveyed are shown as broken lines plotted from information found in Book _____, Page _____, that this map was prepared in accordance with General Statute 47-30 as amended.

Witness my hand and seal this _____ day of _____ A.D., 19 _____.

Surveyor or Engineer

License or Registration Number

Upon approval of the minor subdivision final plat, by the planning services director and town public works director or designee, the following signed certificate shall be shown on each copy of the plat reflecting such approval:

(c) *Certificate of final plat approval.*

By authority of the Town of Harrisburg Subdivision Regulations, this final plat for the _____ Subdivision is hereby approved.

Date

Director of Planning

(d) *Certificate of water and sewer connection fee payment. * only applicable if receiving service through Concord.*

I hereby certify that all water and sewer connection fees for the _____ Subdivision have been paid, or that the fees are not applicable since preliminary plat approval occurred prior to June 28, 1996.

Date

Finance Director

(e) *Plat Review Officer Certificate (as required by 47-30.2)*

State of North Carolina
County of Cabarrus

I, _____, Review Officer of Cabarrus County, certify that the map or plat to which this certification is affixed meets all statutory requirements for recording.

Review Officer

- ***Requirements for a Conveyance Plat (optional for minor plats)***

- A conveyance plat is a simple, clear sketch prepared by a registered surveyor which shows a proposed property division. It shows the relationship of the parcel(s) being subdivided to the original property. The conveyance plat must include the following information:
- *Contents required.*
 - 1) Title Block. The title block shall contain the words “conveyance plat” and shall include the township, parcel identification number, subdivision name, date, scale, name and address of owners and name and address of registered land surveyor. The title block shall be located at the bottom righthand corner of the plat.
 - 2) Survey. The boundary lines on the tract to be subdivided shall be determined by an accurate survey prepared, sealed and signed by a registered land surveyor. The survey shall be drawn in accordance with G.S. 47-30.
 - 3) Streets. Location and labeling of all streets which adjoin property.
 - 4) Zoning. Current zoning of the property.
 - 5) Structures. Location and description of all existing structures on the property.
 - 6) Adjacent Ownership. Name, address, and parcel identification number of adjacent property owners.
 - 7) Size. The conveyance plat may not be larger than 8 1/2 by 14 inches (8 1/2” by 14”).
 - 8) Vicinity Map. A vicinity map, valid north arrow and original surveyor seal and signature to meet the requirements of the North Carolina Surveyors Standards and Practices.
 - 9) Include all contiguous holdings of the owner including land in common ownership with an identification of the portion which is proposed to be subdivided; Be accompanied by an affidavit of ownership, which shall include the dates the respective holdings of land were acquired, together with the book and page where each conveyance to the present owner is recorded with the Register of Deeds. The affidavit shall advise as to the legal owner of the property, the contract owner of the property, the date the contract of sale was executed, and, if any corporations are involved, and a complete list of all directors, officers, and stakeholders of each corporation owning more than five per cent (5%) of any class of stock.
 - 10) *Plat Review Officer Certificate (as required by 47-30.2)*

State of North Carolina
County of Cabarrus

I, _____, Review Officer of Cabarrus County, certify that the map or plat to which this certification is affixed meets all statutory requirements for recording.

Review Officer

B.4. MAJOR SITE PLANS (Conditional rezonings/Conditional use permits).

Contents required:

- A description of the proposed development including proposed uses and coverage.
- The following data, when such data is applicable to a given development plan:
 1. Total number of dwelling units, by development phase;
 2. Residential density and units per acre;
 3. Total floor area and floor area ratio for each type of use;
 4. Total area in open space;
 5. Total area in developed recreational open space; and
 6. Total number of off-street parking and loading spaces.
- A Plot Plan as defined in this Appendix B, with the following additions:
 1. Location and widths of existing and proposed streets, drives, entrances, sidewalks, paths and any other pedestrian and vehicular circulation systems.
 2. Size and /or types of yards as required by Article 7.
 3. Location for all ground-mounted signs.
 4. Size, types, and location of exterior lighting fixtures as required by Appendix E and Article 7.
 5. The location, acreage, category and type of improvements for passive and active (if required) open space.
 6. Location of solid waste containers including proposed design provisions for screening.
 7. If a phased project, a general development phasing schedule including the sequence for each phrase and approximate size, in area, of each phase.
 8. Noted areas, if any, of undisturbed land which is to remain as such.
 9. Delineation of all areas of special flood hazard as defined in Section 4.14 and/or wetlands as defined in Appendix A.
 10. Location and size in acres of any proposed school sites.
- Submission of an architectural plan consistent with the provisions of this Appendix B.
- A preliminary Utility Plan which includes the following information:
 1. The location of existing public utility easements, railroads, power lines, culverts, drain pipes, drainage channels, flood channels, water bodies, streams, swamps, parks, cemeteries, bridges, irrigation ditches, waterlines, sewer lines, and/or natural gas lines.
 2. Preliminary proposals for connection with existing water supply and sanitary sewage systems, or alternative means of providing water supply and sanitary waste treatment and disposal. Indicate approximate location of proposed lines or systems.
 3. Indicate preliminary provisions for collecting and discharging surface water drainage.

It is understood that the information provided above will be used by the Administrator to determine if adequate facilities are available to support the proposed development as set forth in Article 14 of this ordinance.

Number of copies to be submitted shall be specified on the application, as it may vary according to the board(s) that may review the plan.

B.5. MINOR SITE PLANS (Administrative permits).

See applications for the appropriate jurisdiction.

B.6. LANDSCAPING AND MAINTENANCE PLAN.

- *Contents Required:*
- A general landscaping delineation indicating the treatment of materials used for open space, landscaped buffers and common ownership (Minimum scale of 1" = 40').
- Existing vegetation that will be used to satisfy landscaping requirements, including;
 - Limits of preservation for significant existing vegetation
 - Delineate critical root zone (CRZ) for any plants within 10 feet of the edge of the perimeter of the existing vegetation area
 - Tree survey data for groups of individual and freestanding trees, including survey data of the initial ten interior feet of buffer edge abutting construction area
 - Tree protection fencing, including groups of trees and individual trees standing apart from any woods
 - Show existing vegetation and label existing vegetation to be removed on the grading plan
 - -Vegetation to remain and to be installed shall be shown on the landscape plan
- Proposed vegetation that will be used to satisfy landscaping requirements, including;
 - Any planting within designated buffer areas that is required to satisfy ordinance requirements, with widths dimensioned
 - Landscape beds and architectural planting surrounding existing and/or proposed structures on the site
 - Symbols designating type, size, and location, with center of each tree noted (shrubs and groundcover can be shown as a mass)
 - Plant schedule, in chart form, to include scientific and common name, size at time of installation, method of containment (container size, etc.), quantity, and comments
- Existing and Proposed Utility Easements, Rights-of-way, and Electrical Lines
 - Associated Grading Areas for road widening
 - Associated clearing area for installation and/or relocation
 - Adequate in size to include room for trench wall sloping or benching, equipment access, and deposition of soil
 - Easements for underground utilities shall be combined with driveways and internal roads wherever possible to minimize the disturbance of preserved areas of native vegetation
- Hardscape Items (such as sidewalks, plazas, benches, fountains, trash cans, light poles, etc.)
 - If more detail is needed, submit a separate hardscape plan
- Planting areas drawn to scale with a list of the botanical and common names, number, and size of all plants designated for each area.
- Location, name, and size of all existing trees, shrubs, groundcover and other plant materials that are to be incorporated as part of the landscape plan.
- Location and width of landscaped buffer strips, including height of berms.
- Location and sizes of irrigation facilities adequate to maintain the planting areas. (Use of automatic watering systems is encouraged).

Required Submissions

- Landscape Maintenance Plan

- If irrigation must be used, the following must be provided
 - Scaled drawing with maximum scale of 1" = 30'
 - The irrigation designer's name, address and phone number should be on the plan
 - Water supply location (meter, well, etc.), size and static pressure reading before any pressure reduction
 - On-site pump location (where applicable)
 - Backflow prevention device (location, size, winterization techniques to be used, and installation specifications)
 - All irrigation components shall be clearly shown as well as the sprinkler throw pattern of each head
 - Irrigation zones shall be labeled by number and identified as a turf, shrub or flower bed zone
 - The total square footage of irrigated area of each type of zone (turf, shrub or flower bed), shall be clearly indicated on the plan and on the water budget form
 - A completed Water Budget Form supplied by The Town of Cary detailing the irrigation schedule for April through October (run times per cycle, cycles per day, and days per week for each station) and projected water usage per month
 - Recommended maintenance schedules for the system
 - Irrigation systems should be designed by a person having a current CIA/IA "Certified Irrigation Contractor" (CIC), Certified Irrigation Designer" (CID) status or a Professional Engineer or a Landscape Architect

B.7. GRADING AND CONSERVATION PLAN.

- *Contents Required:*
 - The plan shall have a minimum scale at 1" = 40' with 2' contour intervals.
 - The plan may be on the same or on a separate plan sheet from the site plan and shall consist of one or more plan sheets showing:
 - topographic information showing existing features and conditions and proposed clearing and grading; and
 - the extent, location, and type of proposed fill materials.
 - proposed cuts and fills required by the location of all building structures and streets and roads.
 - The plan shall show the degree to which the proposed development will preserve existing features on the site. This shall include features such as healthy desirable trees, shrubs and other vegetation, waterways, vistas, and historic sites.
 - For the purposes of obtaining a Grading Permit (Section 3.2 of this Ordinance), Plan may also include information as required for a Flood Prevention Plan (see below).

B.8. ARCHITECTURAL PLANS (as required for this Ordinance*).

* This shall not include requirements for submission of a Building Permit.

- The architectural plans shall depict architectural details of the proposed development and shall consist of:
 - Preliminary renderings of building elevations plus typical cross sections to clearly define the character of the project;
 - A cross-section elevation plan depicting all buildings, structures, monuments, and other significant natural and man-made features of the proposed development;
 - An exterior building materials inventory, including all calculations required to evaluate the plans for compliance with Appendix E; and
 - any covenant or dedication establishing an architectural review board.
- Furthermore, all architectural plans shall be submitted with an Architectural Intent document that describes how the proposed structure meets or exceeds all of the Architectural and Site Design Standards found in Appendix E.

B.9. FLOOD PREVENTION PLAN.

- A plot plan that shows the 100-year floodplain contour or a statement that the entire lot is within the floodplain must be provided by the development permit applicant when the lot is within or appears to be within the floodplain as mapped by the Federal Emergency Management Agency or the floodplain identified pursuant to 4.14.6 of this Ordinance. The plot plan must be prepared by or under the direct supervision of a registered land surveyor or professional engineer and certified by same.
- The plot plan required by this section must show the floodway, if any, as identified by the Federal Emergency Management Agency or the floodway identified pursuant to 4.14.6 of this Ordinance.
- Where base flood elevation data is provided as set forth in 4.14.6 of this Ordinance or section 38-57(10) of this section, the application for a development permit within the flood hazard area shall show:
 - The elevation (in relation to mean sea level) of the lowest floor (including basement) of all new and substantially improved structures; and
 - If the structure has been floodproofed in accordance with § 4.14.18.4, the elevation (in relation to mean sea level) to which the structure was floodproofed.
- Where the base flood elevation data is not provided, the application for a development permit must show construction of the lowest floor at least two feet above the highest adjacent grade.
- Where any watercourse will be altered or relocated as a result of proposed development, the application for a development permit shall include: a description of the extent of watercourse alteration or relocation; an engineering report on the effects of the proposed project on the flood carrying capacity of the watercourse and the effects to properties located both upstream and downstream; and a map showing the location of the proposed watercourse alteration or relocation.
- When a structure is floodproofed, the applicant shall provide a certificate from a registered professional engineer or architect that the nonresidential floodproofed structure meets the floodproofing criteria in § 4.14.18.4.
- A floor elevation of floodproofing certification is required after the lowest floor is completed. Within 21 calendar days of establishment of the lowest floor elevation of floodproofing by whatever construction means, whichever is applicable, it shall be the duty of the permit holder to submit to the local administrator a certification of the elevation of the lowest floor, or floodproofed elevation, whichever is applicable, as built, in relation to mean sea level. Said certification shall be prepared by or under the direct supervision of a registered land surveyor or professional engineer and certified by same. When floodproofing is utilized for a particular building, said certification shall be prepared by or under the direct supervision of a professional engineer or architect and prior to submission of the certification shall be at the permit holder's risk. The local administrator shall review the floor elevation survey data submitted. Deficiencies detected by such review shall be corrected by the permit holder immediately and prior to further progressive work being permitted to proceed. Failure to submit the survey or failure to make said corrections required hereby shall be cause to issue a stop-work order for the project.

B.10. WATERSHED VARIANCE.

- A site plan, drawn to a scale of at least 1" = 40', indicating the property lines of the parcel upon which the use is proposed; any existing or proposed structures; parking areas and other built-upon areas; surface water drainage. The site plan shall be neatly drawn and indicate north arrow, name, and address of person who prepared the plan, date of the original drawing, and an accurate record of any later revisions.
- A complete and detailed description of the proposed variance, together with any other pertinent information which the applicant feels would be helpful to the Planning and Zoning Board in considering the application.
- The Zoning Administrator shall notify in writing each local government having jurisdiction in the watershed and the entity using the water for consumption. Such notice shall include a description of the variance being requested. Local governments receiving notice of the variance request may submit comments to the Zoning Administrator prior to a decision by the Planning and Zoning Board. Such comments shall become a part of the record of proceedings of the Planning and Zoning Board.

B.11. TRAFFIC IMPACT STUDIES.

- A). **PREPARATION.** The applicant shall furnish the full rationale, from an engineer licensed by the State of North Carolina to perform such studies, to support the recommendations of this analysis. The submission shall include all pertinent traffic data and computations affecting the design proposal for the subdivision streets involved.
- B). **CONTENTS.** Traffic Rezoning Analysis or Traffic Impact Report shall contain information addressing the factors listed below.
- 1) **SITE DESCRIPTION:** he report shall contain illustrations and narrative that describe the characteristics of the site and adjacent land uses as well as expected development in the vicinity which will influence future traffic conditions. For a Rezoning Traffic Analysis, a description of potential uses to be evaluated shall be provided. For a Traffic Impact Report, a description of the proposed development including a access plans, staging plans and an indication of land use and intensity, shall be provided.
 - 2) **STUDY AREA:** The report shall identify the geographic area under study and identify the roadway segments, critical intersections and access points to be analyzed. The geographic area under study shall extend not less than one-half mile from the site.
 - 3) **EXISTING TRAFFIC CONDITIONS:** The report shall contain a summary of the data utilized in the study and an analysis of existing traffic conditions, including:
 - a) traffic count and turning movement information, including the source of and date when traffic count information was collected;
 - b) correction factors that were used to convert collected traffic data into representative average daily traffic volumes;
 - c) roadway characteristics, including the design configuration of existing or proposed roadways, existing traffic control measures (speed limits, traffic signals, or traffic calming measures) and existing driveways and turning movement conflicts in the vicinity of the site; and
 - d) identification of the existing Level of Service for roadways and intersections without project development traffic using methods documented in the Special Report 209: Highway Capacity Manual, published by the Transportation Research Commission, or comparable accepted methods of evaluation. Level of Service should be calculated for the weekday peak hour and, in the case of uses generating high levels of weekend traffic, the Saturday peak hour.
 - 4) **HORIZON YEAR(S) AND BACKGROUND TRAFFIC GROWTH.** The report shall identify the horizon year(s) that were analyzed in the study, the background traffic growth factors for each horizon year, and the method and assumptions used to develop the background traffic growth. Unless otherwise approved by the Engineer, the impact of development shall be analyzed for the year after the development is completed and 10 years after the development is completed.
 - 5) **TRIP GENERATION, TRIP REDUCTION AND TRIP DISTRIBUTION.** The report shall summarize the projected a.m. and p.m. peak hour and average daily trip generation for the proposed development and illustrate the projected trip distribution of trips to and from the site and should identify the basis of the trip generation, trip reduction and trip distribution factors used in the study.
 - 6) **TRAFFIC ASSIGNMENT:** The report shall identify projected roadway segment, intersection or driveway traffic volumes, with and without the proposed development, for the horizon year(s) of the study;
 - 7) **IMPACT ANALYSIS:** The report shall address the impact of projected horizon year(s) traffic volumes relative to each of the applicable traffic service factors listed in paragraph 61.526 and shall identify the

methodology utilized to evaluate the impact. The weekday peak hour impact shall be evaluated as well as the Saturday peak hour for those uses exhibiting high levels of weekend traffic generation.

- 8) MITIGATION /ALTERNATIVES: The report shall identify alternatives for achieving the traffic service standards listed in Article 14 and in addition shall:
- identify where additional right of way is needed to implement mitigation strategies;
 - identify suggested phasing of improvements where needed to maintain compliance with traffic service standards; and
 - identify the anticipated cost of recommended improvements.

C). PROCEDURES.

- 1) The applicant or his designated representative shall contact the Public Works Director or their designee and the Administrator to establish whether a traffic study is needed and to define the parameters for the study. Following preparation of any traffic study, copies of the study report shall be submitted to the Administrator for distribution to staff of the roadway jurisdictions involved in the construction and maintenance of public roadways serving the development. A conference between the staff and applicant shall be held within 10 days to discuss the content and findings of the report and determine the need for any supplemental study or analysis.
- 2) When the Public Works Director or their designee and Administrator have determined that the content of the report adequately addresses the applicable Traffic Service Standards of Article 14 and purposes as listed in Article 14, a finding shall be made that the traffic impact study is complete and proceedings on any application that was stayed pending completion of a traffic analysis can resume.

D). REPORT FINDINGS.

- 1) When staff and the applicant concur that the technical analysis is complete, the report shall be forwarded to the platting authority at its next regular meeting. Negotiations with the platting authority, if needed, shall be held, and a Subdivision Improvement Agreement detailing the applicant's responsibilities and the City's responsibilities for implementing any mitigation measures shall be prepared, and what, if any, improvements may be assessed against other benefited properties.
- 2) If staff finds that the proposed development will not meet applicable service level standards, staff shall recommend one or more of the following actions on the associated development application, as may be needed:
 - Reduce the size, scale, scope or density of the development to reduce traffic generation;
 - Divide the project into phases and authorized only one phase at a time until traffic capacity is adequate for the next phase of development;
 - Dedicate right-of-way for street improvements;
 - Construct new streets;
 - Expand the capacity of existing streets;
 - Redesign ingress and egress to the project to reduce traffic conflicts;
 - Alter the use and type of development to reduce peak hour traffic;
 - Reduce background (existing) traffic;
 - Eliminate the potential for additional traffic generation from undeveloped properties in the vicinity of the proposed development;
 - Integrate non-vehicular design components (e.g., pedestrian and bicycle paths or transit improvements) to reduce trip generation; or
 - Recommend denial of the application for development for which the TIR is submitted.

B.12. PLOT PLAN

- *Contents Required:*
 - Location of structure(s), including but not limited to all proposed decks, steps, or other similar structural improvements
 - Building setbacks
 - Location of off-street parking areas
 - Location of 100-year floodplain

B.13. SIGN PACKAGES

- *Contents Required:*
 - Façade drawings of buildings and where the signs are proposed on those buildings
 - Placement of free-standing signs on the site plan
 - Materials used
 - Method of illumination
 - Dimensions of signs
 - Definition of all applicable sign types
 - Drawings of free-standing signs with dimensions
 - Any other information identified by the Planning and/or Zoning Department for clarification purposes on behalf of enforcement and permitting efficiency.

B.14. LIGHTING PLAN

- *Contents Required:*
 - Proposed Lighting
 - Symbols designating type, size, and location
 - If symbols are used, include a lighting key on the right hand side of each lighting sheet
 - Graphic representation and written description of each type of illuminating device, fixture, lamp, Opole, support, reflector, and other devices (this may include, but is not limited to, catalog cuts by manufactures and/or specification drawings).
 - A point-by-point footcandle diagram on a ten foot by ten foot grid that indicates the footcandles at the finish grade that cover the site and associated areas just beyond the property line to indicate the amount of light trespass.
 - Iso-footcandle curve may be used on projects with only two lights.
 - Photometric summary table showing maintained footcandles – minimum, maximum, and average (The table must also show average to minimum uniformity ratio. Show max to min uniformity ratio and vertical footcandles where needed to meet specific requirements such as parking garages, walkways, etc).
 - Mounting height for each type of fixture plus raised foundation where applicable.
 - IESNA fixture cutoff classification for each fixture type.

Required Submissions

- Statement that all site lighting will be installed in compliance with the Town’s standards.
- Show light locations on Landscape Plan with Photometric summary table showing maintained footcandles – minimum, maximum, and average.

B.15. TREE SURVEY

General Requirements.

- **Preliminary Plat** - The subdivider shall submit three (3) folded copies of a tree survey to the Administrator for processing during the preliminary plat review. The Tree Survey will be reviewed for conformance with Section 9.3 of the Unified Development Ordinance, and a recommendation will be made to Town Council as part of the preliminary plat request.
- **Minor Site Plans** - The subdivider shall submit three (3) folded copies of a tree survey to the Administrator for processing during the minor site plan review. The Tree Survey will be reviewed for conformance with Section 9.3 of the Unified Development Ordinance, and a recommendation will be made to Town Council as part of the preliminary plat request.

Requirements for Preliminary Plat or Site Plan

- No specific size requirements apply to tree surveys. Tree surveys shall be prepared at a scale of one (1) inch equals one hundred (100) feet, or a scale for which one (1) inch equals a distance less than one hundred (100) feet. The tree survey shall be prepared by a registered land surveyor, registered landscape architect, urban forester, botanist, or arborist, and shall depict or contain the information set forth below. Incomplete plans shall be returned to the applicant without further review until revised and resubmitted.
- ***Contents required.***
 - 1) Legend--Title and revision number;
 - 2) Location map showing relationship of the area to the town and surrounding area;
 - 3) Tract boundaries shown by a heavy line including all bearings and distances;
 - 4) Existing property lines, any structures, water courses, railroads, bridges, culverts, and storm drains on the tract and on adjoining property within 100’;
 - 5) All areas that are to remain undisturbed on the site;
 - 6) All existing and proposed topography, at two foot contours, with the limits of grading clearly delineated. Include existing and proposed elevations changes for preserved trees;
 - 7) The location of each trunk, diameter, general condition, and common name of all trees 30” and greater dbh (diameter at breast height) that are proposed to be preserved and/or removed, transplanted, or located in any disturbed area. Please provide permanent numerical ID tags for the heritage trees that correspond to the tree survey;
 - 8) A description of the forest stands on site that are outside of protected areas (i.e., buffers, or open space areas), including information on the type of vegetation and size ranges;
 - 9) If a heritage tree is being removed, the location, diameter, and common name of the trees that will be planted in another location to offset the tree being removed per Section 9.3 of the Unified Development Ordinance;
 - 10) Protective fencing plan showing protective fencing and signage per Section 9.3 of the Ordinance.