16.1 GENERAL PROVISIONS

In addition to the regulations contained herein, the following provisions shall apply to all Development Plans subject to this ordinance. All Development Plans shall:

A. Be designed to facilitate the most advantageous development of the entire neighboring area by protecting and enhancing the stability, character, and environment of the area.

B. Be consistent with all adopted public plans, including all specifications and requirements of the Code.

C. Provide open space as defined and required in this Ordinance, which encourages frequent use, attention, and the presence of people through placement and design. Where possible, the natural terrain, drainage, and vegetation of a site shall be preserved with superior examples contained in parkways and greenways.

D. Have streets that extend existing streets into and through the development.

E. Not have reserve strips adjoining street rights-of-ways for the purpose of preventing access. Reverse frontage and flag lots are disallowed except with special approval ~~due to~~ necessitated by extreme topographic circumstances or site conditions.

F. Where no frontage condition currently exists, have lots and associated new construction front on the existing street.

G. Protect and preserve stands of significant trees, vistas from high ground, or natural water features or courses.

H. Incorporate bike paths, sidewalks, pedestrian paths, greenways, and other pedestrian facilities to connect with similar planned or existing local or regional facilities as shown on official plans and maps of the City of Belmont, the Belmont Pedestrian Transportation Plan, neighboring municipalities, or Gaston County. Designs shall encourage pedestrian and bicycle use by being spatially defined by buildings, trees, and lighting, and by discouraging high-speed traffic.

I. Be designed to accommodate and/or support existing and proposed public transportation routes and facilities.

J. Provide for adequate improvements on all development sites, including streets, greenways, utilities, and drainage.

16.2 LAND SUITABILITY

Land subject to flood hazard, improper drainage, erosion or that is for topographical or other reasons unsuitable for residential use as determined by the City of Belmont, shall not be platted or developed for residential use nor for any other uses that will continue or increase the danger to health, safety, or property unless the hazards can be and are corrected.

A. Flood Hazard Area Development
The land designated within Special Flood Hazard Area zones and Floodway Areas in Zone AE subject to periodic inundation by 100-year flood as shown on FEMA flood insurance rate maps for the Belmont area shall be identified on all plats. Land designated as Special Flood Hazard Area Flood Zone shall be built on only in accordance with the City of Belmont Flood Damage Prevention Ordinance. No grading, clearing, removal of significant vegetation, the placement of structures, fill, or any other encroachment activity shall occur within designated Special Flood Hazard Area zones which would interfere with the natural water course without approval from the City of Belmont Planning Director based upon certification that such activity mitigates the potential adverse impact of flood hazard. Streets and utility lines and structures may be placed within the flood hazard area only if their elevation is raised above maximum flood heights or if they are otherwise flood protected.

B. Watershed Development

All land located within the designated Water Supply Watershed Protection District as shown on the official Belmont Watershed Protection Map shall comply with all provisions of this Ordinance regarding Watershed Protection. The Watershed Protection provisions of this Ordinance shall take precedence over all other provisions of this ordinance with regard to density, open space dedication, and built-upon areas.

C. Demolition Landfill Development

Areas that have been used for the disposal of solid waste shall not be subdivided into commercial or residential building sites. This includes areas that have been used for the disposal of trash, demolition waste, construction debris, stumps, and other waste materials.

16.3 REQUIRED IMPROVEMENTS FOR ALL DEVELOPMENT PLANS

All Development Plans shall be required to install or provide the following improvements:

- Public Water Supply Distribution and Fire Hydrants
- Public Sewer
- Public Streets (paved) and other Public Rights-of-Way
- Easements
- Sidewalks
- Curb and Gutter
- Street Lights
- Pedestrian Crossings (as applicable)
- Underground Wiring
- Dedicated Open Space
- Landscaping (Including Supplemental Tree Plantings)
- Tree Save Areas, where applicable
- Transportation improvements to mitigate impacts on safety, traffic congestion, and transportation operations as defined in Section 16.4.

16.4 CONFORMANCE WITH ADOPTED PLANS

A. OPEN SPACE DESIGNATION

Where the designation of certain significant topographical features is shown on the City of Belmont Parks and Recreation Master Plan or similarly adopted plan, all new development involving the subdivision of land under this Chapter shall make every effort to reserve those features as dedicated open space. The reservation of designated open space areas shall count towards the open space dedication requirements set forth in this Ordinance.

B. CITY STREET AND THOROUGHFARE PLANS

Where a proposed Development Plan includes any part of a City street or thoroughfare which has been designated as such on the official Thoroughfare Plan adopted by the City, North Carolina Department of Transportation, or Gaston-Cleveland-Lincoln-Metropolitan Planning Organization (GCLMPO), or as part of any Transportation Plan adopted by the City of Belmont, a right-of-way shall be platted in the location shown on the Plan at the width specified in this Ordinance.

As a condition of approval, the Developer shall be required to construct the proposed street or thoroughfare within the borders of their Development in accordance with the adopted standards or plans for such construction. In instances where such a street is scheduled for construction by the City or the North Carolina Department of Transportation, the Developer may make a payment in lieu of construction equal to his pro-rata share of the costs of construction. Major thoroughfares and Interstate highway construction are exempted from this requirement.

C. RESERVATION OF SCHOOL SITES AND OTHER PUBLIC BUILDINGS

If the Gaston County Board of Education has determined the specific location and size of any school site or other public building to be reserved and if this information appears in any comprehensive plan over which other local governments have jurisdiction, the Planning Department shall immediately notify the appropriate authority if all or part of the reserved location is included in the proposed subdivision. The responsible authority shall promptly decide whether it still wishes the site to be reserved. The responsible authority shall then have eighteen (18) months beginning upon the date of final plat approval within which to acquire the site as provided in G.S. 160D-804. If the Belmont City Council, the Board of Education, or any other local government having jurisdiction has not purchased or begun proceedings to condemn the site within eighteen (18) months, the developer may treat the land as freed from reservation.

If the total development size exceeds two hundred (200) acres or five hundred (500) housing units, the developer shall reserve adequate (minimum of 16 usable acres) prominent sites for the location of schools. Sites reserved for civic uses may include up to one-half (½) of their total area towards the open space dedication requirement.

16.5 ENVIRONMENTAL SURVEY

Identification of existing trees, understory vegetation, known endangered species, wetlands, streams and creeks, floodplains, and topographical features on a site prior to the advanced preparation of development plans enables the reasonable and practical planned preservation of existing vegetation while considering unique site conditions. This requirement provides the City and the applicant the ability to evaluate the proposed development in order to preserve vegetation, to improve the appearance of the development proposed, and to encourage the use of the existing forest and tree canopy, specimen trees, and significant vegetation to satisfy the requirements of this Chapter. An environmental survey is intended to identify forest stands or trees of a uniform size and species (homogeneous trees); specimen trees of varying sizes and species, particularly free standing or open-grown or field grown trees; a distinctive tree line or forest edge; existing watercourses; and previously documented endangered species habitats.

For the sketch plan and schematic design review phase, the environmental survey requirements are:

A. Provide an aerial photo(s) of the entire development site at a scale no smaller than 1 inch equals 50 feet. Aerial photography obtained from Gaston County (at the appropriate scale) is acceptable. For the sketch plan, this aerial photo is sufficient to show the vegetated area of the property.

B. Denote the dripline of any existing forest stand, as measured between existing tree trunks 6 inches or greater located at the edge of the stand.

C. For schematic plans, a survey showing the location all free standing, open grown or field-grown specimen trees with a Diameter at Breast Height (DBH) of 12 inches or larger located in the tree save areas, as required in Section 11.3.2 on the site.

D. Show all other important natural features influencing site design such as the location of wetlands, rock outcroppings, site topography at two foot contour intervals, perennial streams, natural drainageways, lakes, and other water bodies, and floodplains indicating both the flood fringe and the flood way.

E. A slope analysis showing areas with slopes between 10-15%, 15-25% and greater than 25%.

F. Denote the presence of any known endangered species indicated in any surveys completed by Gaston County, the State of North Carolina, or other Governmental Agency.

16.6 BUFFER DELINEATION

The following buffer delineations are required:

A. Buffer boundaries including all buffer zones must be clearly delineated on all Development Plans for approval by the City, on all Construction Documents, including grading and clearing plans, erosion and sediment control plans, and site plans.

B. Buffer boundaries including all buffer zones must be clearly delineated on-site prior to any land disturbing activities. Where existing trees are to be preserved in a buffer zone, limits of grading shall maintain a minimum 20' separation from the base of each tree on the upland side of the buffer.

C. Buffer boundaries including all buffer zones as well as all buffer requirements must be specified on the record plat, on individual deeds, and in property association documents for lands held in common.

16.7 SKETCH PLAN REQUIREMENTS

In additional to information on the Environmental Survey, the sketch plan shall show in simple sketch form the proposed layout of streets, lots, buildings, public open spaces, and other features in relation to existing conditions. It shall also include the following information:

A. The boundary lines of the property being subdivided.

B. The existing topographic conditions of the property including contours not exceeding 5 feet. Gaston County topographic information may be used to fulfill this requirement.

C. Aerial photograph of the site. The most recent Gaston County aerial photography may be used to fulfill this requirement.

D. The location, names, and right-of-way width of any existing streets on or within 300 feet of the land to be subdivided.

E. Illustrative elevations for any buildings proposed.

The size and number of completed applications shall be set by the Technical Review Committee.

16.8 SCHEMATIC DESIGN PLAN REQUIREMENTS

The size and number of completed applications shall be set by the Technical Review Committee. The Schematic Design Plan must be drawn to the following specifications and must contain or be accompanied by the information listed below. No processing or review of a Schematic Design Plan will proceed without all of the following information:

A. The boundary, as determined by survey, of the area to be developed with all bearings and distances shown and the location within the area, or contiguous to it, of any existing streets, railroad lines, water courses, easements, or other significant features of the tract.

B. Scale denoted both graphically and numerically with north arrow and declination.

C. A vicinity map at a scale no smaller than 1 inch equals 1,200 feet showing the location of the subdivision with respect to adjacent streets and properties.

D. The location of proposed buildings, parking and loading areas, streets, alleys, easements, lots, parks or other open spaces, site reservations (i.e. school sites), property lines and, building setback lines with street dimensions, tentative lot dimensions, and the location of any building restriction areas (i.e. flood hazard areas, watershed protection districts, and/or jurisdictional wetlands.) Site calculations shall include total acreage of tract, acreage in parks and other non-residential uses, total number and acreage of parcels, the total number of housing units, and number of equivalent residential units. Illustrative Landscape Plan denoting compliance with Chapter 11 Tree Protection and Landscaping provisions of this Code.

E. Calculations and plans required for compliance with the Watershed Protection requirements per Chapter 13.

F. The proposed name of the development, street names, the owner's name and address, the names of adjoining subdivisions or property owners, the name of the City, Township, county, and state in which the development is located, the date of plan preparation, and the zoning classification of the tract to be developed and of adjoining properties.

G. Typical cross-sections of proposed streets. Where a proposed street is an extension of an existing street, the profile of the street shall include 300 feet of the existing roadway, with a cross section of the existing street. Where a proposed street within the development abuts a tract of land that adjoins the development and where said street may be expected to extend into said adjoining tract of land, the profile shall be extended to include 300 feet of the said adjoining tract.

H. A timetable for estimated project completion for each phase proposed.

I. Original contours at intervals of not greater than 5 feet for the entire area to be subdivided (2 feet is preferred) and extending into adjoining property for a distance of 300 feet at all points where street rights-of-way connect to the adjoining property and 50 feet at all other points of common project boundaries. Gaston County digital topography may be used to satisfy this requirement but should be field-verified to ensure accuracy.

In addition to the above required information, the following additional information may be required by the Planning Director or designee, the Planning Board, or the City Council on a discretionary site-specific basis:

K. Illustrative elevations of all proposed buildings (except detached homes) including views from all public rights-of-way.

L. Original contours at intervals of not greater than 2 feet for the entire area to be subdivided and extending into adjoining property for a distance of 300 feet at all points where street rights-of-way connect to the adjoining property and 50 feet at all other points of common project boundaries.

M. Environmental Impact Statement, pursuant to Chapter 113A of the North Carolina General Statutes, if: the development exceeds 2 acres in area, and, if the Planning Board deems it necessary ~~due to~~ because of the nature of the land or peculiarities in the proposed design.

N. Development Permit and Certification application with supporting documentation as required by the Belmont Flood Damage Prevention Ordinance.

O. All proposed common access water-related structures (i.e. boat launches and community piers) shall be forwarded to Duke Energy for written comments prior to administrative approval.

P. Written comments from Duke Energy detailing any potential impacts on environmentally significant areas noted on any Shoreline Management Plan.

16.9 CONSTRUCTION DOCUMENT REQUIREMENTS

The Construction Documents for Minor Site Plans, Major Site Plans, Special Use Plans, Major Subdivisions, Vested Rights, and Master Plans shall be submitted in accordance with the specifications of this Section except where specifically noted. Construction Documents shall constitute the complete submittal requirements for Site Plans and Preliminary Plats required prior to construction.

The size and number of completed applications shall be set by the Technical Review Committee. No certifications other than the Certificate of Survey and Accuracy as in Section 16.12 (K) (1) must be provided in connection with the submission.

Construction Drawings must be drawn to the following specifications and must contain or be accompanied by the applicable information listed below. No processing or review of Construction Documents will proceed without all of the following information:

A. The boundary, as determined by survey, of the area to be subdivided with all bearings and distances shown and the location within the area, or contiguous to it, of any existing streets, railroad lines, water courses, easements or other significant features of the tract.

B. Scale in feet denoted both graphically and numerically with north arrow and declination.

C. A vicinity map at a scale no smaller than 1 inch equals 1,200 feet showing the location of the subdivision with respect to adjacent streets and properties.

D. Existing topography and finish grading with contours drawn at two (2) foot intervals. The Planning Director, at his or her discretion, may permit the use of County topographic data in five (5) foot intervals on a site-specific basis. This requirement may be waived for developments smaller than one (1) acre or where he determines that there is insufficient topographic change to warrant such information.

E. The proposed name of the Development, street names, the owner's name and address, signature of the owner or owner's duly authorized agent, the name of the surveyor, the names of adjoining subdivisions or property owners, the name of the township, county, and state in which the development is located, the date of preparation, and the zoning classification of the tract to be developed and of adjoining properties.

F. A statement from the City regarding the availability of adequate water and sewer capacity for the proposed development.

G. **Environmental Survey** in accordance with **Section 15.5**

H. **Landscape Plan** in accordance with **Chapter 11** and **Lighting Plan** showing compliance with **Chapter 12**.

I. The plans for utility layouts, including sanitary sewers, storm sewers, and water lines, illustrating connections to existing systems. All water supply systems and sewage collection systems noted on the Construction Documents shall conform to current City standards. All storm drainage systems shall conform to the Belmont Land Development ~~Code~~ Standard Manual.

J. The location and size of all utility lines, easements, and rights-of-way including water, sewer, storm sewer, natural gas, electric, and telecommunications.

K. The location of proposed buildings, parking and loading areas, streets, alleys, easements, lots, parks or other open spaces, reservations (i.e. school sites), property lines, building setback lines with street dimensions, tentative lot dimensions, and the location of any building restriction areas (i.e. flood hazard areas, watershed

protection districts, and/or jurisdictional wetlands).

L. Site calculations shall include total acreage of tract, acreage in parks and other non-residential uses, total number and acreage of parcels, the total number of housing units, area of all mixed-use and non-residential buildings, and gross project density per acre.

M. The location and dimensions of an off-street parking and loading spaces, and walkways indicating the type of surfacing, size, angle of stalls, width of aisles, and a specific schedule showing the number of parking spaces provided.

N. The location, size, height, and orientation of proposed signs.

O. The location and dimensions of proposed recreation areas, open space, and required amenities and improvements including the calculated area of all required open space dedications in accordance with **Chapter 7**.

P. The location and dimensions of any sidewalks, curb and gutters to be installed along public street frontages. Include other required street improvements designated in **Chapter 8** of this Ordinance, in the Belmont Transportation Plan, or in the Gaston Urban Area Metropolitan Planning Organization Thoroughfare Plan or Transportation Improvement Program. Required right-of-way shall be drawn in the location shown on any official plan at the width specified in this Ordinance.

Q. Typical cross sections of proposed streets showing rights-of-way, pavement widths, grades, and design engineering data for all corners and curves. Where a proposed street is an extension of an existing street the profile of the street shall include 300 feet of the existing roadway, with a cross section of the existing street. Where a proposed street within the subdivision abuts a tract of land that adjoins the subdivision and where said street may be expected to extend into said adjoining tract of land, the profile shall be extended to include 300 feet of the said adjoining tract.

R. The location of any existing or proposed demolition landfills in the site. Such sites shall not be used for building.

S. A copy of the full soil erosion and sedimentation permit application including forms, plans, and calculations submitted to North Carolina Department of Natural Resources-Erosion Control Office. A copy of the approval letter must be submitted prior to Site Plan or Preliminary Plat approval.

T. Final proposed elevations of all non-single family and duplex buildings proposed for construction as part of this Site Plan approval. Subsequent buildings within the development may be handled as separate Site Plans. Such elevations shall include all facades visible from public streets.

In addition to the above required information, the following additional information may be necessary for unique sites:

V. Where a proposed water and sewer system does not contemplate the use of facilities owned and operated by the City, the proposed facility plans ~~as~~ approved by the appropriate agency shall be submitted with the Construction Documents.

W. Where public or community water supply and/or sewerage systems are not available or to be provided, a written statement from the Gaston County Health Department shall be submitted with the Construction Documents indicating that each lot has adequate land area and soil conditions suitable to accommodate the proposed methods of water supply and sewage disposal.

X. Watershed Protection Permit application and supporting calculations and plans in accordance with **Chapter 153 of the Belmont Municipal Code**.

Y. Development Permit and Certification application with supporting documentation as required by the Belmont Flood Damage Prevention Ordinance.

Z. All proposed common access water-related structures (i.e. boat launches and community piers) shall be forwarded to Duke Energy for written comments prior to approval by the City Council.

AA. Written comments from Duke Energy detailing any potential impacts on environmentally-significant areas noted in any Shoreline Management Plan.

16.10 LANDSCAPE PLAN SUBMITTAL REQUIREMENTS

A landscape plan shall be required for all development proposals. Before the removal of any trees, an approved landscape plan is required. The plan must include, at a minimum, the following information:

A. General location, type and quantity of existing plant materials.

B. Existing plant materials and areas to be left in natural state.

C. Methods and details for protecting the critical root zone (CRZ) of existing plant materials during construction.

D. Locations, size and labels for all proposed plants.

E. Plant lists with common name, botanical name, quantity, and spacing and size of all proposed landscape material at the time of planting.

F. Location and description of other landscape improvements, such an earth berms, walls, fences, screens, sculptures, fountains, lights, courtyards, walks or paved areas.

G. Planting and installation details as necessary to ensure conformance with all required standards.

16.11 EASEMENTS

Easements shall be provided on all Construction Documents as follows:

A. Utility Easements: Easements for underground or above ground utilities shall be provided for and centered along rear or side lot lines, and shall be a minimum of 10 feet in width. Easements for water lines, sanitary sewers, and storm drains shall be centered on the pipe and shall be a minimum of 20-ft in width.

B. Drainage Easements: Where a development is traversed by a stream or drainage way, an easement shall be provided conforming with the lines of such stream and of sufficient width as shall be adequate to maintain the overall integrity of the drainage area and provide for its periodic maintenance.

C. Landscape Easements: Landscape easements along streets should be designed in accordance with the provisions of Chapter 11 Tree Protection and Landscaping. The City may require landscape easements for developments where industrial or commercial uses abut residential uses.

D. Public Access Easements: Public Access Easements shall be provided for sidewalks, trails, greenways, and other pedestrian and bicycle facilities that provide connections other than within public rights-of-way.

16.12 FINAL PLAT REQUIREMENTS

The final plat shall be prepared by a registered land surveyor, licensed to practice in the State of North Carolina and must be drawn to a scale no smaller than one (1) inch equals one-hundred (100) feet, and shall meet the requirements of the Gaston County Register of Deeds Office. The final plat shall constitute all portions of the preliminary plat site, which the subdivider proposes to record, and develop at the time. The plat shall be submitted on the following media:

- Three (3) 24" X 36" (preferred) or 36" X 48" copies
- Three (3) 24" X 36" (preferred) or 36" X 48" mylar originals
- One (1) 11" X 17" reduced black and white copy
- Digital File of Recorded Plat in AutoCad (R14 or later) tied to 1983 NAD Coordinate System for incorporation into the City GIS system as maintained by Gaston County

No Final Plat shall be approved unless and until the subdivider has installed in the platted area all improvements required by this ordinance or has posted Improvement Guarantees in accordance with Chapter 15. The Final Plat shall contain the following:

A. The exact boundary of the tract of land being subdivided showing clearly the disposition of all portions of the tract.

B. Scale denoted both graphically and numerically with north arrow and declination. A vicinity map showing the location of the subdivision with respect to adjacent streets and properties.

C. As built drawings and plans of all water, sewer, and storm drainage system facilities, ~~illustrating~~ that illustrate their layouts and connections to existing systems. Such plans shall show all easements and rights-of-way, to demonstrate that the facilities are properly placed and the locations of all fire hydrants, blow-off valves, manholes, pumps, force mains, and gate valves are indicated. This information shall not be placed on the final plat but must be submitted at the time of request for final plat approval or release of any surety for required improvements, whichever comes later.

D. Sufficient data to determine readily and reproduce accurately on the ground the location, bearing, and length of every street, alley line, lot line, building line, easement line, and setback line. All dimensions shall be measured to the nearest one-hundredth of a foot and all angles to the nearest second.

E. The lines and names of all streets, alley lines, lot lines, lot and block numbers, lot addresses, building setback lines, easements, reservations, on-site demolition landfills and areas dedicated to public purpose with notes stating their purposes. All lots subject to flooding shall be noted with the following statement:

> "Any construction or use within the areas delineated as floodway are subject to the restrictions imposed by the Belmont Flood Damage Prevention Ordinance."

F. The accurate locations and descriptions of all monuments, markers, and control points.

G. Underground and aerial utility easements shall be shown.

H. The name of the township in which the subdivision is located, the name of the subdivision, the name of the owner, the name, registration number, and seal of the registered surveyor under whose supervision the plat was prepared, and the date of the plat.

I. Submittal of payment in lieu of dedicated open space (if applicable).

J. All the following certifications must appear on the Final Plat:

1. 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 under my supervision)(deed description recorded in Book____, Page____, Book_____, Page____, 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 G.S. 47- 30 as amended. Witness my hand and seal this___ day of_____, A.D., _____ (year).

_____
Surveyor

_____
Official Seal License or Registration Number

I (officer authorized to take acknowledgments) do hereby certify that (name of registered surveyor) personally appeared before me this day and acknowledged the due execution of this certificate. Witness my hand and (where an official seal is required by law) official seal this ___ day of_____, A.D., _____ (year).

_____
Official Seal Signature of Officer

2. Certificate of Ownership and Dedication. I hereby certify that I am the owner of the property shown and described herein, which is located in the subdivision jurisdiction of the City of Belmont and that I hereby adopt this plan of subdivision with my free consent, establish minimum building setback lines, preserve and protect all significant trees over 18 inches diameter in the tree and root protection area, plant supplementary trees if required, and dedicate all streets, alleys, walks, parks, and other sites and easements, to public or private uses as noted. Furthermore, I hereby dedicate all sanitary sewer, storm sewer, and water lines that are located in public utility easements or rights-of-way to the City of Belmont.

_____ _____
Date Owner(s)

3. Certificate of Approval of the Design and Installation of Streets, Utilities, and Other Required Improvements. I hereby certify that all streets, utilities, and other required improvements have been installed in an acceptable manner and according to City Specifications and Standards or that guarantees of the installation of the required improvements in an amount and manner satisfactory to the City of Belmont has been received.

_____ _____

Date City Engineer, City of Belmont

4a. Certificate of Approval for Recording. I hereby certify that the subdivision plat shown hereon has been found to comply with the Regulating Ordinance for Belmont, North Carolina, and that this plat has been approved by the City of Belmont for recording in the Office of the Register of Deeds of Gaston County. I further certify that the City Council ~~only~~ accepts the dedication of only the public parks shown thereon, if such parks are located within the corporate limits of Belmont, but assumes no responsibility to open or maintain the same until, in the opinion of the City Council, it is in the public interest to do so.

_____ _____

Date Planning Director, ~~Belmont, North Carolina~~ City of Belmont

OR

(The following certificate shall appear on all plats which do not meet the definition of subdivision as defined in this Ordinance, but which need approval from the City for recording at the City County Register of Deeds Office. This Certificate is to be used in lieu of 4a. above.)

4b. Certificate of Approval for Recording. I hereby certify that the subdivision plat shown hereon is exempt from the subdivision provisions of the Belmont Regulating Ordinance, and is therefore not subject to its provisions. The plat has been found to comply with the zoning regulations of the Belmont Regulating Ordinance, and has been approved by the City of Belmont for recording in the Office of the Register of Deeds of Gaston County.

_____ _____

Date Planning Director, ~~Belmont, North Carolina~~ City of Belmont

The following Certificate shall be placed on the final plat only when the proposed subdivision is not to be connected to publicly owned and operated water supply and sewage disposal systems.

5. **Certification of Approval of Water Supply and Sewage Disposal Systems.** I hereby certify that the water supply and sewage systems installed or proposed for installation in _____ Subdivision meet necessary public health requirements and are hereby approved.

_____ _____

Date County Health Officer or Authorized Representative

All plats approved in the City of Belmont's jurisdiction must have one of the following Watershed Certificates on the final plat:

6a. Certificate of Approval for Recording. This property is located within a Public Water Supply Watershed. Development restrictions may apply. I certify that the plat shown hereon complies with the Watershed Protection Ordinance and is approved by the City of Belmont for recording at the Gaston County Register of Deeds Office.

_____ _____

Date Watershed Director, City of Belmont

OR

6b. Certificate of Approval for Recording. I certify that this plat is not within a designated Public Water Supply Watershed.

_____ _____

Date Watershed Director, City of Belmont

OR

6c. Certificate of Approval for Recording. I certify that this plat is within a designated Public Water Supply Watershed, and that the owner and developer have submitted plans and obtained permits for construction prior to the effective date of the Ordinance, and that they are exempt from its provisions.

_____ _____

Date Watershed Director, City of Belmont

7. Review Officer Certification. State of North Carolina, County of Gaston

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

_____ _____

Date Review Officer

8. North Carolina Department of Transportation Certification.
Division of Highways

Proposed Subdivision Road
Construction Standards Certification

APPROVED:_____ DATE:_____

District Engineer

SECTION 16.13 PLACEMENT OF MONUMENTS

Unless otherwise specified by this ordinance, the Manual of Practice for Land Surveying, as adopted by the NC State Board of Registration for Professional Engineers and Land Surveyors under provisions of Chapter 89 of the General Statutes of North Carolina, shall apply when conducting surveys of subdivision; in order to determine the accuracy for surveys and placement of monuments, control corners, markers, and property corner ties; to determine the location, design, and material of monuments, markers, control corners, and property corner ties; and to determine other standards and procedures governing the practice of land surveying for subdivisions.

In addition, for the purpose of identification and protection of survey corners and monuments, each corner or monument within the subdivision shall have a disk attached to a ferrous rod or placed in concrete that shall be stamped to identify that point as a property corner and or control point. All monuments shall be set flush with or just below ground level and shall be made of durable materials. In addition ferrous materials will be present in sufficient mass either in the monument or in close proximity to the monument to allow for detection by electronic metal detection devices. The City Engineer will inspect all monuments prior to final approval of the subdivision.

SECTION 16.14 TRANSPORTATION IMPACT ANALYSIS (TIA)

Transportation impacts, and how to mitigate them, are an important consideration for our community when a significant development is proposed. Public policy makers, citizens and developers all have a stake in understanding and responding to additional demands on the transportation system. A Transportation Impact Analysis (TIA) is a tool used to evaluate the incremental impacts on the surrounding transportation infrastructure and how to mitigate them to maintain safe traffic and transportation operations.

A. TIA Determination: The Planning Director or his/her designee shall determine the need for a TIA upon receipt of a development application accompanied by a sketch or schematic plan. If warranted, the transportation consultant assigned by the city shall prepare the TIA. At the discretion of the North Carolina Department of Transportation (NCDOT) and the City, a Transportation Technical Memorandum (TTM), in lieu of a full TIA report, may be allowed for some developments. If proposed street connections are not consistent with adopted plans, then an explanation or proposed transportation mitigation alternative that is equal or better shall be discussed in the study. NCDOT and the City will be responsible for determining whether the alternative mitigation plan meets and/or exceeds the performance standards of the proposed street connections in the adopted plans.

B. Minimum Thresholds for TIAs: A TIA will be required to accompany the development plan when expected gross trip generation is **1000 total trips or more both entering and exiting the site in a 24-hour period, and/or 100 total trips both entering and exiting the site during either the am or pm peak (prior to any trip reductions applied- see Section H (10)).** Because of the limited arterial roadway network, developments proposed in the South Point Peninsula Area (south of the intersection at Nixon/RL Stowe Roads and South Point Road - See Figure 1) are required to complete a TTM when expected gross trip generation is 500 total trips or more both entering and exiting the site in a 24-hour period, and/or 50 total trips both entering and exiting the site during either the AM or PM peak.

C. The gross trip generation will be calculated by the City based on information (proposed project summary and development plan) provided by the applicant and the final determination for requiring the TIA will be made by the Planning Director. The Planning Director or his/her designee may also determine the need for a TIA or Transportation Technical Memorandum (TTM) based on special circumstances associated with the development, even if the gross trips fall below this threshold. This may be due to location, an intersection or thoroughfare nearby that is at or above capacity, the nature of the use, or one of the following:

1. Traffic generated from a non-residential development that could potentially significantly impact adjacent residential neighborhoods.
2. Traffic operation problems for current and/or future years on nearby streets are expected to be significantly aggravated by traffic generated from the proposed new development.
3. Major and minor thoroughfares near the site are experiencing noticeable delays
4. Traffic safety issues exist at the intersection or street that would serve the proposed new development.
5. The proposed land use differs significantly from the adopted Comprehensive Land Use Plan for the City.
6. The internal street or access system is not anticipated to accommodate the expected traffic generation.
7. The proposed development project includes a drive through facility, or other uses such as schools that require significant on-site circulation that may have an off-site impact to adjoining roads and/or intersections.

8. The amount and/or character of traffic is significantly different from a previously approved TIA, or more than 24 months have passed since completion of a previous TIA.

D. Scoping Meeting – A mandatory scoping meeting is required prior to beginning the TIA or TTM to discuss the requirements and strategies for a TIA/TTM specific to the site and the proposed development. Background information shall be submitted by the applicant five or more business days prior to the scoping meeting and shall include a conceptual site plan showing proposed access points, proposed land use and densities, structure and parking envelopes. The City, the transportation consultant assigned by the City, and the applicant(s) are required to attend the mandatory scoping meeting and the NCDOT district staff will be invited and encouraged to attend if access to a state road is involved. The applicant may invite members of his/her development team as needed.

E. Memorandum of Understanding (MOU) – An MOU, documenting the understood scope of the project, shall be prepared by the transportation consultant assigned by the City. The MOU shall be signed by the applicant and the City, and agreed upon by the NCDOT District Engineer if access to a state road is involved, before the consultant can begin work on the TIA. Failure by the applicant to provide accurate information or failure by the assigned transportation consultant to follow the MOU shall result in disapproval of the TIA. If significant changes are made to the scoping parameters documented in the MOU, a revised MOU will be required.

F. Fees – After the scoping meeting, the transportation consultant assigned by the City shall submit a summary of consultant fees for preparing the TIA (or TTM) to the City. Per the MOU, the applicant(s) shall agree to provide payment in full to the City for preparation of the TIA so that the City can release the work to the consultant. The City may require all or a portion of the estimated fees to be paid to the City prior to commencement of the work. Any additional services incurred by the transportation consultant in addition to the MOU must be approved by the City and agreed to and paid for by the applicant prior to performance of the additional work.

G. Transportation Mitigation Agreement (TMA) – Upon completion of the TIA or TTM, certain on or off-site transportation mitigation measures may be required as recommended by the TIA. If so, the transportation consultant assigned by the City shall prepare a Transportation Mitigation Agreement (TMA) which will summarize the following:

1. Development plan
2. Phasing and timing of development (if applicable)
3. Site access and points of ingress/egress
4. On and off-site improvements required to adequately mitigate the project impacts to the City's transportation system, including vehicular, pedestrian, and bicycle improvements.
5. Trigger points and deadlines for construction of any improvements.

The TMA must be signed by the applicant, City and the NCDOT District or Division Engineer if the mitigation involves a state roadway. All off-site ROW areas shall be acquired and dedicated prior to approval of construction documents, and required mitigation measures must be implemented prior to final Certificate of Occupancy (CO) as identified in the TIA phasing plan, or the applicant(s) shall provide a payment-in-lieu in accordance with Section H (18).

H. TIA Outline and Contents – The outline and contents of what is required to be included in the TIA will be discussed at the scoping meeting and included in the MOU. A detailed summary of the expected content and methodologies to be used in the TIA is discussed below.

1. Cover/Signature page – Includes the project name, location, name of the applicant, contact information for the applicant, and date of the study. The name, contact information, registration number, signature, and seal of a duly qualified and registered professional engineer in the State of North Carolina are also required to appear on this page.
2. Table of Contents – Includes a list of all section headings, figures, tables, and appendices included in the TIA report. Page numbers shall denote the location of all information, excluding appendices, in the TIA report.

3. Executive Summary – Includes a description of the study findings, a general description of the project scope, study horizon years, probable transportation impacts of the project, and mitigation measure recommendations. Technical publications, calculations, documentation, data reporting, and detailed design shall not be included in this section.

4. Project Description – Includes a detailed description of the development, including the size of the parcel, development size, existing and proposed uses for the site, anticipated completion dates (including phasing). It shall also include the square footage of each use and/or the number and size of dwelling units proposed, and a map and copy of the site plan provided by the applicant(s).

5. Site Description – Includes a description of the project location within the City and region, existing zoning and use (and proposed use if applicable), and key physical characteristics of the site, including general terrain and environmentally sensitive or protected areas.

6. Site Access – A complete description of the ingress/egress of the site shall be explained and depicted. It shall include number of driveways, their locations, distances between driveways and intersections, access control (full-movement, leftover, right-in/right-out, etc.) types of driveways (two-way, one-way, etc.), traffic controls, etc. Internal streets (lanes, flow, and queuing), parking lots, sidewalks, bicycle lanes, and designated loading/unloading areas shall also be described. Similar information for adjacent properties, including topographic grade relationship, shall be provided to evaluate opportunities for internal connections. The design, number, and location of access points to collector and arterial roadways immediately adjacent to the site must be fully analyzed. The number of access points shall be kept to a minimum and designed to be consistent with the type of roadway facility. Driveways serving the site from state roads shall be designed in accordance with the NCDOT's Policy on Street and Driveway Access and/or the City standards, as applicable.

7. Study Area – The limits of the study area shall be based on the location, size and extent of the proposed project, and an understanding of existing and future land uses and traffic conditions surrounding the site. The limits of the study area for the TIA or TTM shall be reviewed and approved by the City and NCDOT staff at the mandatory scoping meeting. At a minimum, the study area shall include all signalized intersections within a 1-mile radius of the proposed site unless otherwise noted by the Planning Director and/or where site traffic estimated for build-out of the project will constitute 10% or more of any signalized intersection approach during the peak hour. Unsignalized intersections between the required signalized intersections will be added to the scope as directed by the City. To initially determine the impacts, the City will maintain a database of recent peak-hour intersection turning movement counts. The

applicable intersection counts will be equated to current year baseline volumes. Based on the proposed development program submitted by the applicant, a preliminary trip generation analysis, distribution and assignment will be performed within the area surrounding the site and compared to the current year base volumes. Related impacts or current operational problems, may dictate that other intersections be included in the study area as determined by City staff and/or NCDOT staff. A narrative describing the study area shall identify the location of the proposed project in relation to the existing transportation system and list the specific study intersections and/or segments. Any unique transportation plans or policies applicable to the area (e.g., CATS bus service and future plans) shall be mentioned. A site location map shall be provided and shall identify natural features, major and minor roadways within the study area, study intersections, and a boundary of the site under consideration.

8. Existing Conditions – Shall include a narrative and map that represents AM and PM peak-hour turning-movement volumes for all intersections within the study area. Traffic volumes shall be 15-minute interval weekday turning-movement counts (Tuesday through Thursday), include heavy-vehicle, pedestrian and bicycle counts, and be no more than twelve months old. The required count timeframes are from 6:30-8:30 a.m. and 4:30-7:00 p.m. and shall be collected during periods of the year when local schools are in regular session; however, site-specific conditions may necessitate additional or different traffic counting hours and/or days depending on the development program and location within the City. These unique circumstances will be determined and directed by the City. For example, 12-hour turning movement counts shall be required to complete the analysis if a traffic signal warrant analysis is required as part of the TIA. The City will determine if additional peak hours or weekend analyses shall be included in the TIA at the mandatory scoping meeting. For example, if the development is nearby a school that significantly alters traffic volumes at times other than the peak hours described above, additional study hours will be required. The source of existing traffic volume information shall be explicitly stated (e.g., City counts, new counts collected by the applicant, NCDOT counts, etc.). If previous counts were obtained, only counts collected within one year of the Scoping Meeting will be deemed acceptable. Summary sheets for existing turning movement counts shall be included in the appendix of the TIA report. A separate narrative and map shall be prepared to describe the characteristics of surrounding major roadways, including functional classification, number of lanes, posted speed limit, existing average daily traffic volumes, typical cross section, intersection control, and lineal distance between major roadways. Field notes for the existing conditions investigation may be included in the appendix of the TIA report.

9. Future Year Conditions – Unless otherwise approved by the City, future year conditions for a single-phase development shall be analyzed for the year the development is expected to be at full occupancy (build-out year) and five years after the build-out year (build-out + 5). For multiple-phased development, the scenarios shall be completed in order, with any improvements specified by development included in the subsequent build scenarios, including five years after the full build-out year (build-out + 5). Specific analysis periods to include in the study shall depend greatly upon the development program, proposed project phasing plan, and significant improvements programmed for the surrounding transportation system. The approved offsite developments and transportation projects to be included in the base future-year background conditions for the transportation system within the study area shall be determined during the scoping meeting. Transportation improvements assumed in the future-year background conditions analysis may include those with an

expected completion date concurrent with that of the development and funded through either by the City of Belmont, State of North Carolina Transportation Improvement Program, or indicated as a required condition of approval from another nearby development application. Only projects approved by the City at the scoping meeting may be included in the analysis as future existing infrastructure. Those improvements committed by other projects must be clearly identified in the report as approved offsite development road improvements. Adjacent development traffic information used in the development of the future year background traffic volumes shall be included in the appendix of the TIA report. Unfunded, planned infrastructure projects may be mentioned in the TIA, but the description shall specifically identify that these projects are not included in the background condition. Future year background traffic volumes shall be forecasted using historical growth rate information, regional models, and/or TIA reports for development approved by the City but not yet built. A narrative and map shall be prepared that presents turning movement volumes for each peak hour for all intersections identified within the study area. Future year base traffic volumes, other development volumes, and site traffic volumes shall be clearly separated and combined in the map.

10. Trip Generation – Base trip generation for the proposed land use(s) shall be calculated using data published in the latest version of the Institute of Transportation Engineers' (ITE) Trip Generation Manual. Data limitations, data age, choice of peak hour of adjacent street traffic, choice of independent variable, and choice of average rate versus equation shall be discussed at the mandatory scoping meeting. Local trip generation rates may be acceptable if appropriate validation is provided by the applicant to support them. Any deviation from ITE trip generation rates shall be discussed in the mandatory scoping meeting and documented in the MOU if approved by the City and NCDOT. The NCDOT Municipal School Transportation Assistance (MSTA) calculator shall be used to calculate projected trip generations for school sites.

    a. Internal Capture – Base trip generation may be reduced by rate of internal capture when two or more land uses are proposed using methodology recommended in the most current Trip Generation Handbook published by the ITE or research published by the National Cooperative Highway Research Program (NCHRP) Transportation Research Board. Reductions for internal capture shall be applied to multi- or mixed-use sites only, and reductions greater than 10% in any peak hour require consultation and acceptance by the City and NCDOT. The internal capture reduction shall be applied before pass-by trips are calculated.

    b. Pass-by Trips – Pass-by trips are those made as intermediate trips between an origin and primary destination (i.e., home to work, home to shopping, etc.). However, pass-by trips are not diverted from another roadway. Base trip generation may be reduced by rate of pass-by capture using methodology recommended in the most current Trip Generation Handbook published by the ITE. Pass-by trips associated with the development program may not exceed 10% of the existing peak-hour volume reported for the adjacent public street network. This network shall include the streets that provide primary access to/from the site. For example, if a site access drive that connects to a low-volume local street, which its primary access to a major collector road, the traffic on the major collector shall be used as the adjacent street for pass-by calculation purposes. Evaluation of diverted trips may

apply depending on the specifics of each site. A trip generation table shall summarize all trip generation calculations for the project.

11. Trip Distribution – External trip distribution shall be determined on a project-by-project basis using one of several sources of information available to transportation and land planning professionals. Potential sources for determining project trip distribution may include the regional travel demand model, market analysis, existing traffic patterns, or professional judgment. At the City's direction, multiple trip distributions may be required for differing land use types. Regardless of methodology, the procedures followed and logic for estimating trip distribution percentages must be well-documented in the TIA. Trip distribution percentages proposed for the surrounding transportation network shall be discussed during the scoping meeting and shall be approved by the City and NCDOT before proceeding with the TIA. A map showing the percentage of site traffic on each street included in the study area shall be included in the TIA.

12. Trip Assignment – Project traffic shall be distributed to the surrounding transportation system based on the site's trip generation estimates and trip distribution percentages. Future year build-out traffic forecasts (i.e., future year background traffic plus project traffic) shall be represented in graphic formats for AM and PM peak-hour conditions at all intersections included in the study area. If the project will be built in phases, traffic assignments shall be reported for each phase. Pass-by traffic shall be included at the driveways and access points for evaluating driveway volumes. Multiple assignment analyses may be required if the traffic control at the access drives varies (i.e., right-in/right-out vs. stop controlled vs. signalized).

13. Operations Analysis - Level-of-Service (LOS) and delay are the primary measures of effectiveness for impacts to the transportation system, and are defined by the most current edition of the Highway Capacity Manual (HCM). Operations analyses shall be performed for the existing and all future year scenarios. Impacts from the proposed project shall be measured by comparing the future year background conditions to the future year build-out conditions. Requirements for mitigation are described in Section H (17).

    a. Vehicle Capacity Analysis –Unless otherwise noted, Synchro LOS and delay shall be reported for all signalized intersections and approaches identified in the study area. Based on HCM, LOS for unsignalized intersections is not defined as a whole; instead, only the individual stop-controlled or yield approaches shall be reported based on the HCM reports determined through the Synchro analysis. Existing signalized intersections shall be modeled based on existing signal timing plans provided by either the City or NCDOT. Existing signal timing plans shall be included in the appendix of the TIA report. If a traffic signal is part of a coordinated system it must be analyzed as such under all conditions. Other standard practices and default input values for evaluating signalized intersections shall be consistent with the most recent guidelines published by the NCDOT, Traffic Engineering and Safety Systems Branch, Congestion Management Unit ("Capacity Analysis Guidelines"). The City may also require safety, traffic simulation, gap and/or other analyses appropriate for evaluating a development application. Additional analyses and/or traffic capacity or simulation tools (such as VISSIM) required for the TIA shall be identified during the scoping meeting. Capacity calculations shall be included for the existing and all future year

scenarios, as described in Section H (9)). Impacts from the proposed project shall be measured by comparing the future year background conditions to the future year build-out conditions. Requirements for mitigation are described in Section H (17). All TIA reports submitted to the City shall use Synchro, SimTraffic or VISSIM analysis software for signalized and unsignalized intersections, or Sidra Software for roundabouts, consistent with policies released by the NCDOT. A narrative, table, and map shall be prepared that summarizes the methodology and measured conditions at the intersections reported in LOS (LOS A – F), the intersection and approach signal delay for signalized intersections, the approach delay for unsignalized intersections, and 95th percentile queue lengths for all movements. Capacity analysis worksheets and auxiliary turn lane warrants for unsignalized intersections shall be included in the appendix of the TIA report.

b. Multimodal Capacity Analysis- For developments located within the Center City Small Area Plan as defined within Belmont's most recently adopted Comprehensive Land Use Plan, the TIA/TTM shall provide multi-modal operations analyses including vehicular, pedestrian and bicycle traffic, to allow for the safe and convenient travel for all modes.

i. Pedestrian Analysis - Unless otherwise noted, methodology provided in the latest edition of the HCM shall be used to evaluate pedestrian LOS for the intersections identified in the study area.

ii. Bicycle Analysis – The bicycle LOS at intersections identified in the study area shall be evaluated using locally accepted methodology.

14. Queuing Analysis – 95th percentile and simulation analysis of future year queues shall be consistent with NCDOT's Traffic Engineering and Safety Systems Branch, Congestion Management Unit current practices and published Capacity Analysis Guidelines. Turn lanes and storage lengths for the major street (uncontrolled) approaches at unsignalized driveways shall be identified using volume thresholds published in the NCDOT's Policy on Street and Driveway Access to North Carolina Highways (see Warrant for Left- and Right-Turn Lanes Nomograph, pg. 80). Recommendations for left and right turn lanes serving the site shall be designed to both account for the NCDOT warrants described above and to meet future year capacity needs identified in the TIA report. For projects that include drive-through facilities, pick-up/drop-off areas, or entrance gates, a queuing analysis may be required by the City to ensure that vehicle stacking will not adversely impact the public transportation system. The queuing analysis must be performed using accepted transportation engineering procedures approved by the City. If a TIA is required for a new school site, the internal circulation and ingress/egress of the site shall be modeled using a "dummy signal" in the Synchro software as prescribed by NCDOT Municipal School Transportation Assistance (MSTA) department.

15. Crash Analysis – A summary of crash data (type, number, and severity) for the most recent 3-year period at each study location is required. Traffic Engineering Accident Analysis System reports will be provided by the City and/or NCDOT and shall be included in the appendix of the TIA report. For locations with prevalent crash types and/or frequency, a discussion shall be included describing factors that may be contributing to the incidents. At a minimum, the proposed development features shall

not contribute to factors potentially involved in collision rates. If contributing factors are identified, recommendations to eliminate or mitigate these features shall be included.

16. Traffic Signal Warrants – City staff and NCDOT may consider potential signal locations at the scoping meeting. However, traffic flow progression is of paramount importance when considering a new traffic signal location. A new traffic signal shall not cause an undesirable delay to the surrounding transportation system. Installation of a traffic signal at a new location shall be based on the application of warrants criteria contained in the most current edition of the Manual on Uniform Traffic Control Devices (MUTCD) and engineering judgment. Traffic signal warrants shall be included in the appendix of the TIA report. Additionally, spacing of traffic signals within the City must adhere to NCDOT requirements. Pedestrian movements must be considered in the evaluation and adequate pedestrian clearance provided in the signal cycle split assumptions. If a signal warrant analysis is recommended in the TIA, the City and/or NCDOT may decide to defer a signal warrant analysis until after the development has opened to allow use of actual turning movement counts at an intersection. The TIA recommendations must clearly state that this analysis shall occur at a specified date following the opening of the development. The applicant must issue a bond or letter of credit in the name of the City for the estimated cost of the signal warrant analysis and resulting signal prior to final approval of the TIA. The cost shall be established based on an engineer's estimate provided by the engineer of record for the applicant; however, final approval of the dollar amount rests with the City.

17. Mitigation Measure Recommendations – This section of the TIA report shall provide a description of the study's findings regarding impacts of the proposed project on the existing and future transportation system and describe the location, nature, and extent of all mitigation measures recommended to the applicant to improve and/or maintain the future year background conditions LOS through phasing and ultimate build-out of the project. This mitigation will be based on the build-out year scenario. The applicant is required to mitigate transportation deficiencies caused solely by the projected impact of their proposed development, and not unacceptable background conditions or other deficiencies caused by offsite development within the defined study area.

    The applicant shall be required to identify mitigation improvements to the roadway network if at least one of the following conditions exists when comparing future year background conditions to future year build-out conditions:

    a. the total average delay at an intersection or individual approach increases by 25% or greater, while maintaining the same LOS,
    b. the LOS degrades by at least one level,
    c. or the LOS is "D" or worse in background conditions and the proposed project shows a negative impact on the intersection or approach

    If the background LOS (intersection or approach) is inadequate (i.e., "D," "E," or F"), the applicant will be expected to mitigate only the impact caused by the proposed project. For example if the background LOS of an approach is LOS F with 85 seconds of delay, and the project traffic increases the delay to 95 seconds at LOS F, the applicant will be required to mitigate the added 10 seconds of delay on the approach, not required to mitigate the inadequate background delay. City staff and NCDOT will

review the recommendations in the final version of the TIA and will have the ultimate determination in the scope of the required mitigation measures.

For multi-phase developments, the capacity analyses scenarios shall address the phasing of improvements for each phase of development. The build-out + 5 scenario will require the analysis of only five years beyond the full build-out year. The build-out + 5 scenario analysis is not used for mitigation purposes. A narrative and table shall be prepared that summarizes the methodology and measured conditions at the intersections reported in LOS (LOS A–F) and average control delay for each intersection and approach.

A narrative and map shall also be prepared that describes and illustrates recommended improvements, by development phase if necessary, for mitigating the projected impact of the proposed development.

18. Payment-In-Lieu of Transportation Improvements–A developer may request consideration of payment-in-lieu of required transportation improvements by City Council at the time of schematic plan approval if the following conditions exist:
    a. The developer is unable to secure the needed right-of-way (ROW) for off-site transportation improvements.
    b. Funded transportation projects overlap with the improvements associated with the development's recommended mitigation.

    For multi-phase projects, requests for payment-in-lieu consideration at the time of schematic plan approval shall be limited to the first phase of development.

    All payment-in-lieu requests shall include cost estimate calculations prepared by the applicant that meet the following standards:
    - All cost estimate calculations must be prepared by a professional engineer.
    - Cost estimates shall be based on a minimum of **15% engineered roadway design plans** per City of Belmont Land Development Standards Manual and NCDOT Roadway Design Guidelines.
    - The calculation shall include costs associated with remaining design needed, right-of-way (ROW) acquisition, utilities, construction for the associated improvements**,** and contingency.

    Any requests for payment-in-lieu received following a schematic plan approval and associated traffic mitigation agreement (TMA) shall be considered an as amendment to the approved plans.

    If City Council, at its discretion, agrees to accept payment-in-lieu of transportation improvements for a development, the exact payment amount shall be verified at the time of construction plan review and shall meet the following standards:
    - All cost estimate calculations must be updated by a professional engineer.
    - Cost estimates shall be based on a minimum of **25% engineered roadway design plans** per City of Belmont Land Development Standards Manual and NCDOT Roadway Design Guidelines.
    - The calculation shall include costs associated with remaining design needed, right-of-way (ROW) acquisition, utilities, construction for the associated improvements, and contingency.

All calculated cost estimates shall not be more than two years old at the time of acceptance by the city, and payment must be received prior to approval of the associated construction plans.

19. Compliance with Adopted Transportation Plans – All TIA reports must include a statement of compliance with plans, programs, and policies adopted by the City of Belmont for maintaining a safe and efficient multi-modal transportation system.

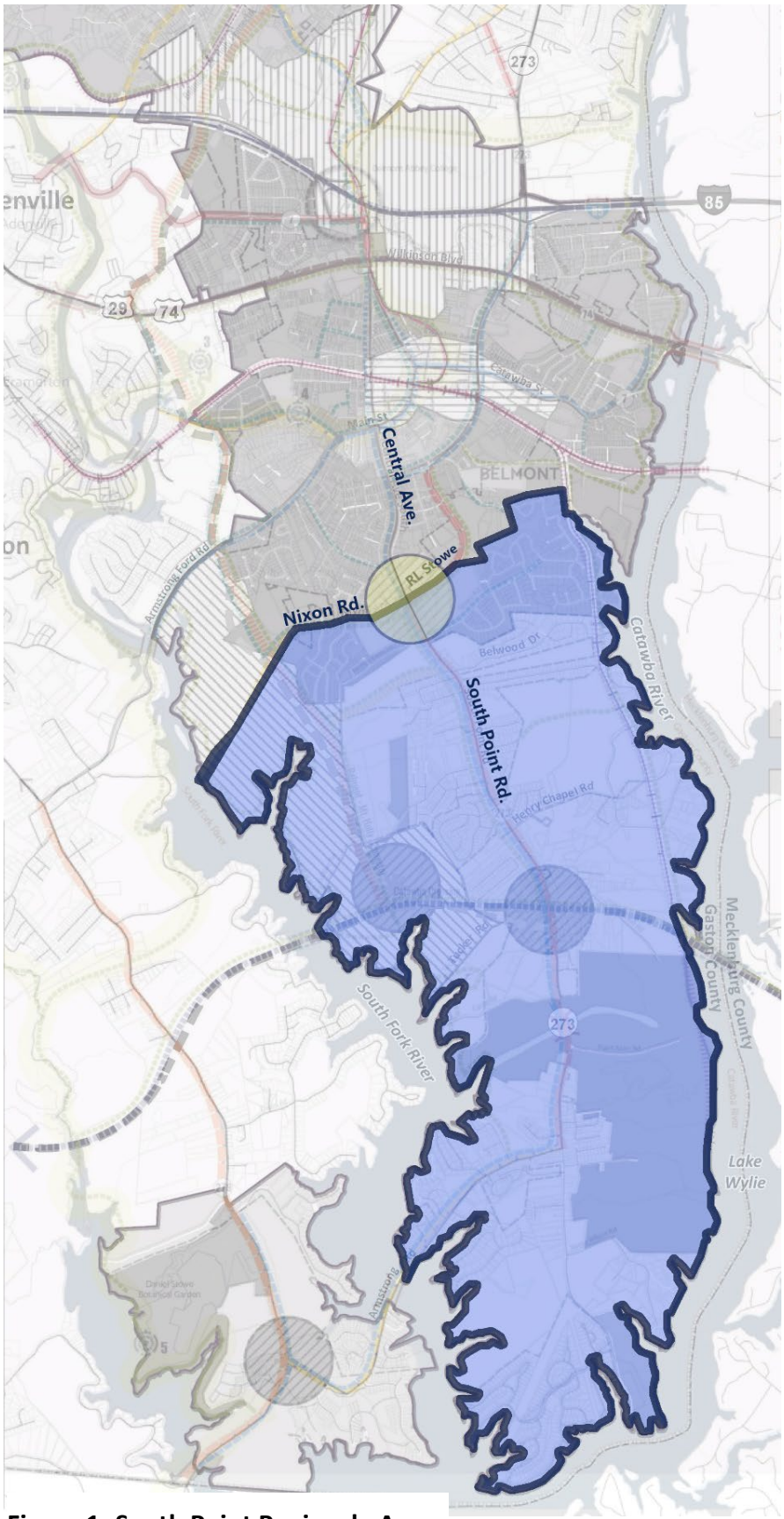

Figure 1- South Point Peninsula Area