

**ARTICLE V. CREATION, EXTENSION, MODIFICATION, OR CONNECTION TO THE
STORMWATER UTILITY SYSTEM (THE MUNICIPAL SEPARATE STORM SEWER
SYSTEM (MS4))**

Sec. 60-76. Purpose of article.

The purpose of this article is to set forth the standards by which the city's municipal separate storm sewer system (MS4) may be extended.

The standards of this article apply to all extensions, both publicly and privately owned. In addition, this article contains standards for private extensions planned to be incorporated into the MS4.

The city provides the MS4 in public rights-of-way and city stormwater easements according to the provisions of this chapter. In an effort to plan for future extensions of the Concord stormwater management system, the city maintains a Capital Improvement Plan (C.I.P.). The city shall endeavor to provide the extensions and services proposed in the C.I.P. if funded through the city's capital improvements budget. Extensions to the system may be made during the course of development. Consideration shall be given to each proposed developments in conformity to the city's "stormwater master plan," the adopted land use and other plans of the city, and the city's adopted annexation plan. If an extension or stormwater control measure is authorized, then all city design standards shall be met and the permit application process in [Unified Development Ordinance] (UDO) Articles 4 and 5 or 6 shall be followed. All such extensions shall become a part of the city's MS4 if accepted for public ownership and maintenance by the city council.

(Ord. No. 07-108, § 1, 12-13-2007)

**Sec. 60-77. Procedures and standards for creation, extension, modification, or connection to
the Concord Municipal Separate Storm Sewer System (MS4).**

- (a) *Prior to application submittal.* Preliminary site plans and engineering plans shall be prepared in accordance with the city's ordinances, including this chapter 60, the UDO (see article 4 and articles 5 or 6), and the city's technical standards manual prior to an application package submittal. Applicants shall meet with the city's stormwater administrator or his designee to review these preliminary plans prior to the preparation of the final plans and the application package.
- (b) *Application requirements.*
 - (1) All persons intending to construct, alter, modify, expand or connect to any portion of the Concord Stormwater Management System shall make timely and proper application to the city's stormwater administrator and provide such information as may be required by the stormwater administrator and director of engineering. At a minimum, the applicant shall:
 - a. Provide a plan that shows the acreage of the area to be served, identifies the type of development (residential, commercial etc.), estimates the maximum potential demands that the development may impose on the existing system, and determine the adequacy of the existing system to meet those demands;

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- b. Provide a proposed schedule for the construction of the development and any proposed development phases;
 - c. Document the intended use of the stormwater conveyance and control system extension;
 - d. Design and install the infrastructure in accordance with the C.I.P. and/or the city's standard specifications and design standards. If the proposed extension has not been identified in a C.I.P., the design engineer shall evaluate the infrastructure's ability to adequately serve surrounding sites in the area of consideration. This evaluation shall be reviewed and approved by the stormwater administrator or his designee;
 - e. Contract and fund the complete range of design services required for all on-site and off-site utilities. The alignment and design of the utilities shall meet the intent of a project identified in the city's standard specifications and design standards. The design shall meet the design standards of this article and shall be submitted to the city for review and approval in accordance with this chapter. Designs and alignments that do not comply with the intent of the C.I.P. and/or the city's standard specifications and design standards may be rejected regardless of project's compliance with other portions of this chapter.
 - f. Grant to the city, at no cost, all on-site utility rights-of-way and easements deemed necessary by the stormwater administrator and the director of engineering.
- (c) *Incomplete application package.* Any application package determined incomplete by the stormwater administrator shall be returned to the applicant. Revised engineering plans and specifications shall constitute a re-submittal, shall be accompanied by a new fee, and shall require additional time for review. A complete application package that contains sufficient information to ascertain reasonable grounds to believe the application package and its contents meet all applicable standards of this chapter shall be acknowledged by a letter setting a date for a pre-construction conference. No discussion at the review conference shall preclude or otherwise bar the city from denying a permit, or issuing a permit that incorporates conditions, based upon changed circumstances or information not previously known by the stormwater administrator or the applicant. In either event, no single submittal of an application package will be held open for review longer than 90 days without the issuance of a letter requesting additional information or an "authorization to construct" permit being issued following a pre-construction conference. Application packages delayed by lack of action by any person or entity other than the city shall be deemed denied and shall require re-submittal.
- (d) *Authorization to construct.* It shall be unlawful to begin the construction of a building or project infrastructure until the stormwater administrator has issued an "authorization to construct" permit, and any additional required permits have been issued by either the city, Cabarrus County and/or the State of North Carolina, as needed and required.
- (e) *Funding of oversized utilities.* The city shall take reasonable steps to ensure that adequate funding is available to accommodate any requested oversizing or upsizing needs, as provided in section 60-78 below, however the city cannot guarantee the funding of specific proposed projects.
- (f) *Standards for Concord separate stormwater sewer system (MS4) extensions and/or connections.* The responsibility for and cost of such extension within new developments shall be borne by the requesting party, unless upsizing is required by the city in accordance with section 60-78. Where a proposed development of property located within the city necessitates a replacement, upgrade, or expansion in size or capacity of stormwater conveyance and appurtenant facilities that are already available to serve the property (as opposed to an extension of a line to make service available), and the replacement, upgrade, or expansion for the proposed development cannot be constructed in the time requested by the owner or developer under the city's scheduled and budgeted C.I.P. or capital improvements budget, the city may enter into a contract with the owner or developer of such property pursuant to which the owner or developer shall pay some or all of the cost of the necessary improvements.

(Ord. No. 07-108, § 1, 12-13-2007)

Sec. 60-78. Standards for oversizing Concord's Stormwater Management System and infrastructure reimbursement agreements.

- (a) Pursuant to G.S. 160A-499 this section authorizes and sets forth the procedures and terms under which the city may approve reimbursement agreements with private developers and property owners for the design and construction of MS4 that is included on the city's capital improvement plan and serves the developer or property owner.
- (b) The city manager, or designee, is authorized to negotiate municipal infrastructure reimbursement agreements with private developers and property owners pursuant to this section. In negotiating such agreements, the city manager, or designee, shall determine that:
 - (1) The cost to the city will not exceed the estimated cost of providing for the municipal infrastructure through either eligible force account qualified labor or through a public contract let pursuant to G.S. 143-128 et seq.; or
 - (2) The coordination of separately constructed municipal infrastructure with the associated private development would be impracticable.
 - (3) City approval authority for agreements under this section shall be governed by general city contracting authorizations and delegations.
- (c) Such reimbursements, if any, may be paid from any lawful source if approved by the city council.
- (d) A municipal infrastructure reimbursement agreement approved pursuant to this section shall not be subject to G.S. Ch. 143, Art. 8 unless the award of a contract for work would have required competitive bidding if the contract had been awarded by the city. If the city would have been required to follow G.S. Ch. 143, Art. 8, then the developer or property owner is required to comply with the requirements of G.S. Ch. 143, Art. 8.
- (e) A municipal infrastructure reimbursement agreement approved pursuant to this section shall require the private developer or property owner party to comply with all of the city's rules, regulations and ordinances and be current on all debts, fees or taxes owed to the city.

(Ord. No. 07-108, § 1, 12-13-2007)

Sec. 60-79. Infrastructure capital recovery fee for CIP investments.

The Concord Stormwater Management Program will exercise a capital investment program following the needs identified in the stormwater master plan and to meet other infrastructure and water quality needs as they are identified by other means, based upon the availability of funds and approval by city council. As pipe sizes are upsized and regional stormwater detention and/or treatment systems are installed to accommodate future land development, a significant capital investment is made by the city that includes annual maintenance and monitoring costs. When new developments are constructed that will have access to these city owned and operated facilities, the new developments will be required to pay a proportionate share of the capital investment and operating costs associated with all downstream pipes and detention and/or treatment facilities. The cost of these capital recovery fees will be charged to the developer and must be paid prior to receiving final plat approval.

(Ord. No. 07-108, § 1, 12-13-2007)

Sec. 60-80. Pre-construction conference and issuance of permit.

- (a) The developer, design engineer, and contractor or a designated representative for each shall attend the pre-construction conference. If a representative for each of the aforementioned parties is not in attendance, the pre-construction conference shall be rescheduled to a later date when each party can be represented.
- (b) The developer, design engineer, and contractor or a designated representative for each, shall provide copies of all applicable federal, state, and local permits, easements, rights-of-way and encroachments and the appropriate engineering drawings to the stormwater administrator for approval prior to the pre-construction conference.
- (c) The "authorization to construct" permit shall be issued by the stormwater administrator after all applicable federal, state and local permits, recorded easements and encroachments have been received and written approval from the stormwater administrator has been issued for the submitted engineering drawings and the developer, design engineer, and contractor or a designated representative for each has met the pre-construction conference requirements.
- (d) Any construction activity initiated prior to the receipt of a written "authorization-to-construct" permit from the stormwater administrator shall be prohibited and subject to a civil penalty of up to ten percent per day of the posted bond or letter of credit. If no bond or letter of credit has been posted, any utility construction activity initiated prior to the receipt of a written "authorization-to-construct" permit from the stormwater administrator shall be prohibited and subject to a civil penalty of up to ten percent per day of the amount of the bond or letter of credit that should have been posted if the permitting process set forth in this chapter had been followed as by law provided.
- (e) In the event that construction does not commence and complete within 12 months of the issuance of the permit, the permit shall expire and a new permit must be applied for and obtained by the applicant. An active permit must be maintained until full final approval has been issued for the infrastructure defined in the permit. Written requests for an extension of time received prior to expiration of the permit may be granted by the stormwater administrator for good cause shown.
- (f) The denial of the issuance of a permit, subject to the provisions in this section shall be made in writing and shall contain the reasons for the denial and the city's estimate of the general changes in the applicant's proposed activities or plan which will be required in order that the applicant may obtain a permit. Nothing in such estimate shall preclude or otherwise bar the city from denying a permit, which incorporates such changes, based upon changed circumstances or information not previously known by the stormwater administrator or the applicant.
- (g) Copies of all applicable federal, state, and local permits shall be submitted to the stormwater administrator prior to the City of Concord's issuance of an "authorization-to-construct" permit.

(Ord. No. 07-108, § 1, 12-13-2007)

Sec. 60-81. Modifications and revocations of permits.

Any permit issued by the city pursuant to this article is subject to revocation, suspension or modification, in whole or in part, upon 14 days' written notice to the applicant by the stormwater administrator for good cause including, but not limited to the following:

- (1) Violation of any terms, conditions, or requirements of this article or the permit; or
- (2) Falsification or misrepresentation of information provided in the permit application and/or in the engineering plans and specifications; or

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- (3) Failure to disclose relevant information; or
 - (4) Refusal of or by the owner/developer or their contractor, agent, and employees to allow authorized officers, employees, or agents of the city, upon presentation of credentials, to inspect or observe any activity, system, or other work approved within the owner/developer's permit; or
 - (5) Failure to follow the approved contract documents and engineering plans and specifications without receiving proper authority from the city.

(Ord. No. 07-108, § 1, 12-13-2007)

Sec. 60-82. Construction process.

- (a) Deviations from the approved engineering plans and specifications or changes in site conditions shall be submitted in writing by the engineer to the stormwater administrator for written approval prior to any further construction or installation activity.
- (b) Modifications to the approved plans requiring federal, state, and local regulatory approval shall be the responsibility of the developer, contractor, and/or engineer. The developer shall assume full responsibility for acquiring the applicable regulatory permits and approvals, prior to further construction or installation activity.
- (c) The developer shall hold the city and/or stormwater administrator, their officers and agents harmless of any responsibility or liability, upon the failure of the developer to obtain required regulatory approvals prior to further construction activity and the developers' failure to adhere to regulatory requirements during the construction activities.

(Ord. No. 07-108, § 1, 12-13-2007)

Sec. 60-83. Inspection.

- (a) The developer shall obtain the services of a competent and experienced engineer. The engineer shall provide the services of project design, surveying and grade control, right-of-way and easement recordation and construction inspection. It shall be the engineers' responsibility to supervise construction, establish grades or to provide solutions to grade, construction, or design problems and to obtain the appropriate federal, state, and local permits, encroachments, easements, and rights-of-way, as applicable.
- (b) The stormwater administrator shall have a field representative periodically observe the work while construction is in progress. This periodic construction observation by the stormwater administrator shall be subject to reasonable development construction observation fees and any other reasonable fees that may be applicable. Failure of the stormwater administrator to discover deficiencies at the time of construction shall not relieve the developer or his/her agent of the responsibility to correct such defects.
- (c) The engineer shall certify that the installation of the extensions is in accordance with all applicable federal, state, and local regulations and standards and constructed in accordance with the approved contract documents and engineering plans.
- (d) Contract documents, approved engineering plans and specifications bearing the city's stamp of approval and associated permits shall be present at the project site at all times and made available upon request.

(Ord. No. 07-108, § 1, 12-13-2007)

Sec. 60-84. Video assessment.

The interior of all storm sewers shall be cleaned and the contents disposed in a manner acceptable to the city and NC DEQ and shall be video recorded on a CD, DVD or equivalent successor media after the installation and testing is complete and submitted to the stormwater administrator for review prior to the acceptance and final approval of the extension. All associated costs shall be borne by the developer. Only those pipes located within the public road rights-of-way and city easements accepted for public ownership and maintenance by city council will become part of the Concord MS4.

(Ord. No. 07-108, § 1, 12-13-2007; Ord. No. 21-19, § 1, 3-11-2021)

Sec. 60-85. As-built drawings.

- (a) The developer, and his/her engineer and/or contractor or his/her designee shall maintain current as-built drawings and survey the location and elevation of the infrastructure during the construction process. As-built drawings shall be maintained and available for inspection, upon the stormwater administrator's request.
- (b) The engineer shall submit and certify a legible copy of the "as-built" drawings for the review, approval, and recordation to the stormwater administrator upon the completion of construction.
- (c) As-built drawings shall include, but are not limited to, all of the information submitted on the engineering construction drawings as corrected, as well as the information listed below:
 - (1) *General information.*
 - a. Road names, as approved by the business and neighborhood services department, shall be identified on the plan view.
 - b. Underground utility location, if not noted, if not identified on the approved engineering plans, or if the exact location not previously identified. Additional information shall be identified on the profile view.
 - c. Relative features, including but not limited to street addresses, property line, natural features, etc. Additional information shall be identified on the plan view.
 - (2) *Conveyance-related information.*
 - a. *Pipes.*
 - 1. Location of pipes within right-of-way limits, if changed. Corrections shall be identified on the plan view.
 - 2. Installed distances and slopes. Information shall be identified on the profile view.
 - 3. Pipe type and size, if changed. Corrections shall be identified on the profile view.
 - 4. Bore casing sizes and distances. Information shall be identified on the plan view.
 - 5. Details on aerial creek crossings. Information shall be identified on the plan and profile view as needed.
 - 6. Station location of special devices or appurtenances (e.g., anti-seep collars), measured from the downstream structure. Information shall be identified on the profile view.
 - 7. Information concerning distance to other utilities shall be identified on the profile view.
 - 8. Station location of laterals, measured from the downstream structure shall be identified on the plan view.

b. *Structures.*

1. Structure shape, size and inlet type. Information shall be identified on the profile view.
2. Elevations. Information shall be identified on the profile view.
 - i. Inverts in, inverts out, and drop inverts (top and bottom).
 - ii. Inlets and rims. Elevations shall be provided in vertical feet.
 - iii. Overflow structures. Elevations shall be provided in vertical feet.

(3) *Detention-related information.*

- a. Location of perimeter within right-of-way limits, if changed. Corrections shall be identified on the plan view.
- b. Perimeter and distances. Information shall be identified on the plan view.
- c. Installed slopes. Corrections shall be identified on the profile view.
- d. Distance to other utilities. Information shall be identified on the plan view.
- e. Corrections to design and performance parameters in approved engineering design package for each BMP as required.

(Ord. No. 07-108, § 1, 12-13-2007)

Sec. 60-86. Record drawings.

- (a) The engineer shall provide to the stormwater administrator "record" drawings and a digital copy of "record" drawings. Record drawings shall be signed and sealed by a professional engineer licensed to practice in North Carolina. Digital record drawings shall be supplied in format AutoCAD Release 14 or a later release, or in a format as specified by the stormwater administrator. All surveys shall be referenced to North Carolina grid coordinates. In addition the vertical monuments and datum from which the project was designed shall be designated on the map.
- (b) As-built drawings shall be signed and sealed by a professional surveyor licensed to practice in North Carolina and shall reflect actual field location of infrastructure as installed. All information required on the as-built drawings shall be reflected on the record drawings.
- (c) Recorded rights-of-way and easements shall be shown on the record drawings, including the required digital record drawings. Utility rights-of-way and easements shall be surveyed and recorded in accordance with the city's current rights-of-way, easements and encroachments policy. All recorded rights-of-way, easements, and encroachments shall be submitted to the stormwater administrator prior to final approval of the infrastructure.
- (d) Record drawings shall be submitted prior to the certification and activation of the extension.

(Ord. No. 07-108, § 1, 12-13-2007)

Sec. 60-87. Certification.

The engineer shall be responsible for sealing and certifying that materials and the construction of the extension and/or modification to the stormwater conveyance and control system have met all the applicable rules, regulations, statutes, and ordinances of the City of Concord, State of North Carolina, and the United States of America and is in substantial compliance with the approved engineering plans, specifications, supporting materials,

and associated permits. A copy of the certification shall be provided to the stormwater administrator prior to final approval. Projects may be certified in phases.

(Ord. No. 07-108, § 1, 12-13-2007)

Sec. 60-88. Application package for final approval.

The application package for final approval of the stormwater conveyance and control system extensions and/or modifications (or any phase thereof) shall include but shall not be limited to the following:

- (1) Three completed copies of the final certification executed and sealed by an engineer, one copy of the sealed "as-built" drawings, three sets of the sealed "record" drawings, and one digital copy of the "record" drawings, as specified in section 60-87 of this article, shall be submitted to the stormwater administrator for review and approval.
- (2) The applicant shall satisfactorily prove that the applicant, or any parent, subsidiary, or other affiliate, has obtained all necessary permits, encroachments, and rights-of-way and executed all necessary maintenance agreements, in accordance with the city's UDO Section 4.4.6, required to carry out the activity for which the permit is being requested.
- (3) All executed and recorded rights-of-way, easements, encroachments, and maintenance agreements shall be submitted to the stormwater administrator in a form and content acceptable to the city attorney prior to final approval of the infrastructure.

(Ord. No. 07-108, § 1, 12-13-2007)

Sec. 60-89. Final approval requirements and conditions.

- (a) Final approval shall not be issued until the construction of the extension and/or modification to the stormwater conveyance and control system have meet all the applicable rules, regulations, statutes, and ordinances of the city, the State of North Carolina, and the United States of America.
- (b) The engineer shall certify that the installation and the construction of any extension and/or modification to the stormwater conveyance and control system shall meet all regulatory design standards and is in substantial compliance with the approved engineering plans and associated permits.
- (c) If the stormwater administrator should find that final approval should be denied, the denial shall be made in writing and shall contain each reason for the denial and the stormwater administrator's estimate of the general changes in the applicant's proposed activities or plan which will be required, in order that the applicant may obtain a final approval. Nothing in such estimate shall preclude or otherwise bar the stormwater administrator from denying final approval, which incorporates such changes, based upon changed circumstances or information not previously known by the stormwater administrator.
- (d) A properly executed certification, the "as-built" drawings, the "record" drawings, and the video assessment, as prescribed in section 60-85 of this article, shall be submitted to the stormwater administrator for review and shall be determined complete by the stormwater administrator before final approval is issued.
- (e) No construction, alteration, or expansion of the stormwater conveyance and control system shall be placed into final service until the applicant has fully complied with all applicable federal, state, and local regulations and standards and has obtained final approval from the stormwater administrator.

(Ord. No. 07-108, § 1, 12-13-2007)

Sec. 60-90. Donation/acceptance of systems to the city.

- (a) Stormwater management systems and associated rights-of-way and other appurtenances as required that are intended for public use and transport stormwater from city roadways shall be granted and conveyed to and become the property of the city upon the final written approval of the stormwater administrator and acceptance by the city council.
- (b) The city council shall not accept the ownership, operation, or maintenance responsibility of modifications or extensions that do not meet the requirements of this article or other applicable law and regulation.
- (c) Following the developer's donation and the city's acceptance of a modification or extension, the city shall have sole ownership and rights to the modification or extension and shall assume all operation and maintenance responsibilities.

(Ord. No. 07-108, § 1, 12-13-2007)

Sec. 60-91. Warranty.

- (a) The developer shall be responsible for the material and craftsmanship of all donated infrastructure for a period of one year from the date of certification of the project or the phase of the project. The city has the right to increase the warranty period for atypical construction materials or construction techniques. The warranty period shall begin on the date that the city accepts ownership of the modification or extension.
- (b) In accordance with Article 5, Section 5.7.10 of the City of Concord Unified Development Ordinance, this warranty shall include any damages that may arise from construction by other utility companies or homebuilders.
- (c) The city shall relieve the developer of their obligation under the warranty period by when the developer shall performs a one-year warranty inspection satisfactory to the city that shall include, but not be limited to cleaning the interior of all storm sewers and dispose of the contents in a manner acceptable to the city and NC DEQ and shall video recorded on a CD, DVD or equivalent successor media all pipes and appurtenances, and all video and a written summary of condition of the stormwater system with an itemized list of deficiencies shall be complete and submitted to the stormwater administrator for review prior to the acceptance and final approval of the extension. The city reserves the right to have an observer present during the cleaning and video inspection activities, and to receive copies of the unedited videos immediately upon request at no cost to the city. All associated cleaning and inspection costs shall be borne by the developer.

Any and all defects found at this time that do not conform to the city's standards or this article shall be repaired or replaced at the developer's expense. The city stormwater administrator shall be the final judge of the acceptability of workmanship and quality of materials and installation.

- (d) The city shall, upon final acceptance at the end of the applicable warranty period, release the developer's bond of surety or letter of credit.

(Ord. No. 07-108, § 1, 12-13-2007; Ord. No. 21-19, § 1, 3-11-2021)

Sec. 60-92. Design standards.

Stormwater conveyance and control system extensions and/or modifications shall be designed in accordance with all applicable federal; state, including but not limited to 15A NCAC 2H .1008 and the NCDEQ Stormwater BMP Manual; local regulations; and the city's Technical Standards Manual.

(Ord. No. 07-108, § 1, 12-13-2007; Ord. No. 21-19, § 1, 3-11-2021)

Sec. 60-93. Required design calculations.

The engineer shall provide all necessary evaluations, justifications, and calculations to the city's stormwater department deemed necessary to meet the requirements of all federal, state, and local requirements and to ensure that the design conforms to good engineering practice.

(Ord. No. 07-108, § 1, 12-13-2007)

Sec. 60-94. Exception.

- (a) The City of Concord may grant an exception from the requirements of this chapter if:
- (1) There are unique circumstances applicable to the site such that strict adherence to the provisions of the chapter will result in unnecessary hardship or create practical difficulties; and
 - (2) The exception is in harmony with the general purpose and intent of this chapter and no violation of the city's NPDES stormwater discharge permit or Interbasin Transfer Certificate conditions will result; and
 - (3) In granting this exception, water quality has been protected, public safety and welfare has been assured, and substantial justice has been done; and
 - (4) The exception request is approved by both the stormwater administrator and the director of engineering.
- (b) A written request for an exception shall be submitted to the stormwater administrator and shall state the specific variance sought, the justification for the variance, and what measures will be taken to insure the requirements of this chapter have been met to the maximum extent practicable. It shall include descriptions, drawings, calculations and any other information that is necessary to evaluate the proposed exception.

(Ord. No. 07-108, § 1, 12-13-2007)