

Be it ordained by the Town Meeting of the Town of Sprague that Ordinance 1966-1 is hereby amended to include the following article.

ARTICLE 1991-2

AN ORDINANCE REGULATING THE ADDITION OF ANY NEW STREET TO THE HIGHWAY SYSTEM OF THE TOWN OF SPRAGUE.

Section 1. DEFINITIONS:

“Street” means a right-of-way intended for public vehicular use which is improved, dedicated, and accepted in accordance with the specifications prescribed by this ordinance, including a proposed street shown on a subdivision plan under consideration by the Sprague Planning and Zoning Commission. A street may be further classified as follows:

- a) Collector-Arterial: A street that primarily provides for through-traffic movement, between and across, areas of the Town of Sprague, and also provides direct access to abutting property.
- b) Local: A street that primarily provides for direct access to abutting land and for local traffic movement.
- c) Cul-de-sac: A local street having only one point of vehicular access and is terminated by a paved vehicular turn-around.

“Board” means the Board of Selectmen.

“Qualified Engineer” means a professional engineer, licensed in the State of Connecticut, with previous experience in roadway design.

“Qualified Surveyor” means a land surveyor licensed in the State of Connecticut.

“Applicant” means an owner, developer, and/or agents responsible for the accurate presentation of all information submitted to the Town.

“State Guidelines” means the Connecticut Department of Transportation “Guidelines for Highway Design”, all references to other State and Federal publications, and all future documents that will supersede this publication.

“CONNDOT Specifications” means Connecticut Department of Transportation “Standard Specifications for Roads, Bridges, and Incidental Construction” (Form 814, 1988) and future editions of this publication.

Section 2. APPROVAL AND ACCEPTANCE PROCEDURE:

1. Approval Procedure: Whenever any street is proposed and before any construction clearing or excavation is initiated, the Applicant shall present to the Board three certified copies of construction drawings and pavement profiles prepared by a Qualified Engineer; three certified copies of a right-of-way or subdivision plan showing the extent

of the proposed road right-of-way prepared by a Qualified Surveyor; together with a topography map of the area and a written application for approval of the proposed streets.

If the right-of-way or subdivision plan is incorporated on to the construction drawings, certification from both a Qualified Engineer and Surveyor is required on the drawing. The construction drawings shall be 24' x 36' in size, plus or minus 1 inch. The drawings shall show in detail all proposed drainage improvements, as prepared by a Qualified Engineer.

The Board, at a regular meeting, shall discuss the proposed drawings with the Applicant and if approved, approved with changes, or disapproved, shall return one copy of the plan with note of its action to the Applicant within 30 days from the receipt of the application. When approved by the Board, one certified mylar copy of the drawings shall be filed with the Town Clerk by the Applicant within 90 calendar days of the approval date.

2. Final Acceptance Procedure: Upon completion of construction of proposed street, and before final acceptance by the Board of said street into the Town Highway System, the Applicant shall furnish a statement from a Qualified Engineer, certifying that:
 - a. All construction has been completed according to the submitted construction drawings and in accordance with all submitted specifications.
 - b. The Applicant's engineer shall certify that all materials and products used for construction conform to the approved construction drawings and specifications. The Engineer shall also certify that all dimensions, including thickness of subbase, base, pavement and pipe bedding layers conform to the construction drawings and specifications. At the Board's option, the Applicant may be required to employ the services of a qualified engineering and/or surveying firm of the Board's choosing for the purposes of construction observation, conformance statement preparation, and as-built drawing preparation. The Board may also choose, at its discretion, to hire a Qualified Engineer or Surveying Firm directly. The fees for these services shall be borne exclusively by the Applicant. The Board reserves the right to institute an escrow account consisting of the Applicant's funds to finance these services. Account shall be refunded to the Applicant within 60 days from final acceptances of the street(s).
 - c. Three sets of certified and embossed as-built drawings prepared by a Qualified Surveyor shall be submitted to the Town showing all changes in horizontal and vertical street alignment, curbing, sidewalks and drainage improvements. All drainage system invert elevations shall be shown on these drawings, and shall be accurate to the nearest one-hundredth of a foot.
 - d. The as-built drawings and the conformance statements shall be reviewed by the Town or its agent. The street will be accepted by the Board into the Town Highway system if these submittals are approved and if a town meeting votes to accept the proposed street(s).
3. Recorded Acceptance: Final acceptance of all roads by the Board of Selectmen shall be entered into the minutes book of the Town Clerk of the Town of Sprague as proof of such acceptance.

Section 3. DESIGN AND CONSTRUCTION SPECIFICATIONS:

1. Cross Section Elements:

a. Pavement and Right-of-Way Widths:

1. A collector-arterial street shall have a pavement width of 34 feet, center right-of-way of 60 feet.
2. A local street shall have a pavement width of 28 feet centered in a right-of-way of 50 feet.
3. A cul-de-sac street shall have a pavement width of 28 feet centered in a right-of-way of 50 feet; it shall not exceed 500 feet in length; and shall have at the closed end a turn-around containing a right-of-way having an outside radius of not less than sixty (60) feet, which shall be paved to a radius of not less than fifty (50) feet.

b. Pavement cross slopes shall be $\frac{1}{4}$ of an inch per foot.

c. Snow shelves shall extend a minimum of 3 feet from the curb face and shall positively drain with a minimum slope of 5%, and a maximum slope of 10%.

d. Maximum slopes:

1. Earth cut slopes shall not be steeper than 3-horizontal to 1-vertical.
2. Rock cut slopes shall not exceed 1-horizontal to 2-vertical.
3. Earth fill slopes shall not be steeper than 3-horizontal to 1-vertical.
4. Blasting shall be permitted at the Board's discretion. No blasting is to be conducted until approval for this activity from the Board is obtained.

e. Guiderails and other roadside barriers shall be selected and located in accordance with the CONNDOT "Manual for Selecting, Locating and Designing Guiderailing and Barriers" and CONNDOT standard drawings. The location of roadside traffic control signs shall also be located according to this manual. The board may modify guiderail requirements at its discretion.

f. Clear Zone Requirements: No brush, trees, boulders, or non-traffic control related signs shall exist within 8 feet of the edge of the pavement.

g. Sidewalks: Where paved sidewalks are required, they shall meet the following requirements.

1. Sidewalks shall be designed and constructed in accordance with the CONNDOT specifications.
2. Sidewalks shall be constructed of Portland cement concrete, and shall be a minimum of 4 feet in width.

3. The width of the area between the sidewalk and the curbing at the edge of the pavement shall be 4 feet minimum.
 4. Steps in sidewalks are not permitted.
 5. At intersections, sidewalks shall be continued to the curb line and shall meet all local, state and federal handicapped access requirements.
- h. All utilities shall be in place before final grading and compaction of streets.
- i. Other incidental construction, shall conform to the CONNDOT specifications and to all applicable local, state and federal regulations.

2. Geometric Elements:

a. Vertical Alignment:

1. Street profile grades shall be no less than 0.5% at all locations, except at vertical sag curve location. Unless otherwise approved by the Board of Selectmen, no profile grades shall exceed the following standards:
 - a. Collector-arterial street: 8%
 - b. Local and cul-de-sac street: 10%
2. The profile of a street shall have no abrupt changes of grade. Vertical curves shall be used at changes of grades exceeding 3%, and shall be designed and constructed within State guidelines to insure that adequate sight lines are provided.
3. The approach to any intersection shall have a maximum profile grade of 2%, for a minimum distance of 50 feet measured from the pavement edge of the intersecting street.

b. Horizontal Alignment:

1. Whenever street lines are deflected in excess of 5 degrees, connection shall be made by a horizontal curve. To insure adequate sight distance, centerline radii for horizontal curves shall be designed and constructed in accordance with State guidelines.
2. A tangent section of 100 feet minimum is required between reverse curves on collector-arterial streets. On local and cul-de-sac streets, a minimum 50 foot tangent distance between reverse curves is required.

c. Right-of-Way Monumentation: All beginnings and ends of horizontal curves and all changes in street right-of-way direction shall be monumented. Proposed monumentation is subject to review by the Board.

d. Intersections:

1. Streets shall be designed and constructed so as to intersect, as nearly as possible, at right angles. No street shall intersect another at an angle of less

than 75 degrees. In all cases, intersections shall be designed so as to provide satisfactory land usage and safe traffic conditions.

2. Two streets entering a third street in the vicinity of one another shall be designed and constructed either directly opposite one another or at least 150 feet apart, measured from centerline to centerline.
3. Curb radii shall be provided at street intersections, according to the type of streets intersecting and the angle at which they intersect; provided, however, that none shall be less than 25 feet.
4. Adequate intersection sight distance shall be provided for at intersecting streets and driveways in accordance with State guidelines.

3. Traffic Control Signs and Pavement Marking:

- a. All temporary and permanent traffic control signs shall be designed and installed in accordance with the Federal Highway Administration's "*Manual on Uniform Traffic Control Devices*", per approval by the Board. It is recommended that the Connecticut Department of Transportation Sign Catalog be used to identify which particular signs will be installed.
- b. Traffic control during construction shall meet with the Board's approval.
- c. Pavement markings shall conform to applicable local, state and federal requirements and shall meet with the Board's approval.

4. Drainage System Design Requirements:

- a. Three sets of standardized drainage calculations shall be submitted to the Board for review, demonstrating that the proposed storm drainage systems can safely accommodate all existing run-off within the system's watershed area. The proposed systems must also accommodate run-off that may be generated by all reasonable future development consistent with current zoning within their watershed areas. The calculations shall employ run-off estimation methods consistent with the watershed area under consideration.

Drainage systems shall be designed to accommodate the following standard return frequency storms.

1. Drain pipe and culverts – 10 year storm.
2. Culverts at street low points – 25 year storm.
3. Culverts serving perennial stream crossings – 25 year storm.
4. Storm water detention basins:
 - Rural area – 25 year storm
 - Urbanized area – 50 or 100 year storm, at the discretion of the Board
- b. The minimum culvert or storm drain size shall be 15 inches inside diameter.

c. Erosion protection shall be provided at all storm water discharge outlets.

5. Drainage System Construction Requirements:

a. Drain pipes shall be installed on prepared pipe bedding material which consists of sand or sandy soil, all of which passes a 3/8" sieve, and not more than 10% passes a Number 200 sieve. When groundwater is encountered, 3/4 inch stone, conforming to Article M.01.01 of the CONNDOT specifications, shall be used instead of sand or sandy soil. Pipe bedding material shall surround the installed drainpipe, with a minimum thickness of 6 inches. Twelve inches of bedding material shall be installed beneath the pipe if rock excavation is required below the pipe flow line.

Drain pipe shall conform to Section 6.51 of the CONNDOT specifications. Culvert ends shall conform to Section 6.52 of the CONNDOT specifications. All pipes shall have a minimum of 2 foot of cover over the top of the pipe, or more where manufacturer's recommendations require.

b. Drain structures shall be installed on top of a 12 inch minimum thickness of prepared bedding material, consisting of 3/4 inch stone conforming to Article M.01.01 of the CONNDOT specifications. Drainage catch basin, manhole and drop inlet materials and construction shall conform to Section 5.07 of the CONNDOT specifications. Other drainage structures and features shall conform to the appropriate CONNDOT specification section.

c. Backfill shall be placed on top of properly bedded drain pipe, or adjacent to drainage structures. Excavated material free of stones larger than 12 inches in diameter and free of organic material and other debris, may be used as backfill if compacted in 12 inch lifts or less. 24 inch or less lifts are permitted, if not located under pavement, sidewalk or other structures. Backfill conforming to Article M.02.05, of the CONNDOT specifications, may be used and must be compacted in 24 inch lifts, or less, including under pavement, sidewalk or other structures.

6. Road Materials and Construction Specifications:

1. Subgrade formation shall conform to Section 2.09 of the CONNDOT specifications.

2. Gravel fill material and construction shall conform to Section 2.13 of the CONNDOT specifications.

3. Subbase shall be installed on top of prepared gravel fill or resident subgrade soil and shall have a minimum depth of 8 inches at all locations. Materials and construction shall conform to Section 2.12 of the CONNDOT specifications, with the exception that the material gradation shall conform to CONNDOT specification M.02.06, Grading A (3-1/2 inch maximum stone size).

4. Processed aggregate base shall be installed on top of prepared subbase and shall have a minimum depth of 4 inches at all locations. Material and construction shall conform to Section 3.04 of the CONNDOT specifications.

5. Bituminous concrete pavement shall be installed on top of prepared process aggregate base material. It shall be installed in two 1-1/2 inch lifts, with a minimum final compacted pavement thickness of 3 inches at all locations. The lower pavement layer (binder course) shall consist of Class I bituminous concrete, and the

upper pavement layer (wearing course) shall consist of Class II bituminous concrete, as defined by the CONNDOT specifications. Material and construction shall conform to Section 4.06 of CONNDOT specifications.

6. Bituminous concrete lip curbing shall be installed on top of prepared binder or wearing course pavement layers. Final curb height shall be 6 inches, as measured from the top of the wearing course gutter line to the top of curbing. Materials and construction shall conform to Section 8.15 of the CONNDOT specifications.

Section 4. OTHER REQUIREMENTS

1. Drainage Rights: All drainage rights and/or easements necessary for Town maintenance of drainage systems located partially within the street right-of-way shall be procured and transmitted to the Town by the Applicant at no cost to the Town. The minimum easement width shall be 20 feet. Easements must provide direct access from the street right-of-way and should continue to a proper stormwater discharge point. All deed and easement transfers are subject to review by the Town attorney.
2. Names of Streets: New street names shall be approved by the Board of Selectmen. Names of new streets shall not duplicate nor bare phonetic resemblance to names of existing streets within the Town of Sprague. A street which is proposed as an extension of an existing street shall bear the same name as the existing street.
3. All streets shall be conveyed by warrantee deed to the Town of Sprague.
4. Surety Bond: The Board shall require that a surety bond of cash or collateral shall be deposited with the Town Treasurer in an amount sufficient to cover any incomplete work before a certificate pertaining the status of such road can be issued by the Board of Selectmen, or any officer of the Town of Sprague.
5. Previous Street Regulations and/or Ordinances: This ordinance shall supersede any previous regulations and/or ordinances, and shall become effective 15 days after its publication in a local newspaper having circulation in the Town of Sprague.
6. Exceptions: Any street currently being reviewed by the Town's Planning and Zoning Commission at the time this ordinance becomes effective shall not be bound by the requirements of this revised ordinance, but shall be bound under Town policy in effect prior to the institution of this ordinance.
7. Other Approvals: Compliance with this ordinance and/or approval by the Board does not relieve the Applicant of responsibilities to obtain all other Local, State, or Federal approvals required for construction.
8. Fees: All plans for new streets to be accepted by the Town shall include a design review and inspection fee of an amount not to exceed 5% (five percent) of the cost of construction as calculated by the licensed engineer sealing the plans and accepted or modified by the Board of Selectmen for the purposes of the performance bond.
9. Amendments: The Board of Selectmen are hereby empowered to amend these regulations as necessary after holding a public hearing on any such amendments. These proposed amendments shall be described in a legal notice placed in a newspaper having

substantial circulation in the Town of Sprague at least 5 days prior to any public hearing on same.

August 6, 1991