

**The State of New Hampshire
Before the
Public Utilities Commission**

**PETITION OF TDS TELECOM. FOR LICENSE TO CONSTRUCT AND MAINTAIN A
FIBER OPTIC CABLE OVER AND ACROSS THE MERRIMACK RIVER BETWEEN
UTILITY POLES CE21 NET 27/1 AND CE2 NET 20 IN BOSCAWEN, NH.**

TO THE PUBLIC UTILITIES COMMISSION:

TDS Telecom, a telecommunications company ("TDS Telecom") in the State of New Hampshire, hereby petitions the Public Utilities Commission ("Commission"), pursuant to RSA 371:17, for a license to construct and maintain telecommunication lines over and across the Merrimack River in the Town of Boscawen, New Hampshire and in support of its petition TDS states as follows:

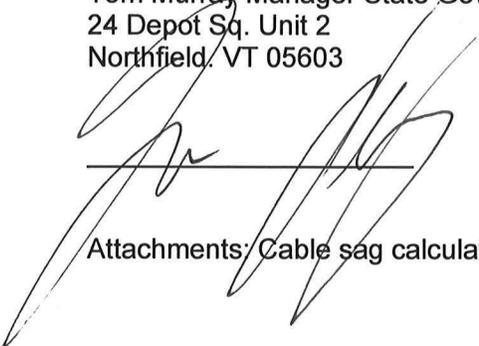
1. In order to meet reasonable requirements of service to the public, TDS is proposing to construct a new fiber optic line. The new line will help to accommodate the growth demand and to obtain a greater level of service reliability.
2. The new line will cross the Merrimack River at near Commercial Street on the West side of the river and near Hannah Duston Drive on the East side of the river, See the attached location map.
3. The design and proposed construction of the crossing is shown on the attached engineer profile drawing. Based on the research and field inspection of the site it has been determined that the Merrimack River has been classified as a waterway suitable for sail-boating. See NESC Table 232-1. The acreage is 41 acres less than 200 acres but greater than 20 acres and does not provide access into any larger waterway due to dams. The required clearance is 25.5 feet.
4. The proposed crossing will occur between two existing Utility poles are joint owned by Unitil Electric and Fairpoint Communications. The existing poles area set approximately 450 feet apart. The existing pole on the West side of the Merrimack River, pole number CE21 NET 27/18 is approximately 37 feet tall. The existing pole on the East side of the Merrimack River pole # CE1 NET 27/18 is approximately 42 feet tall. The pole survey performed determined there is make ready work required for TDS to attach to these poles. The work will include bring the clearance into compliance on the West side and lower the utilities to make room for the proposed cable. The TDS fiber cable will be attached as shown on the accompanying drawing. The Existing poles are in good conditions, age is unknown they will be used as is with additional guying see plan and structural report.
5. The line will be made up of two materials; 5/16", extra high strength (EHS) galvanized steel strand and 1 non-supporting cable, added diameter = 0.40", weight = 0.047 lb/ft and .006 lb/ft for lashing, for each non-supporting cable. The strand and non-supporting cables will be sagged using the Heavy Load condition with maximum tension of 5407 lbs under that load on the upper connection or the West pole. The RTS is 11,200 lbs.

6. The floodwater elevation for the Merrimack River is based on information from the Flood Insurance Rate Map (FIRM). For the City of Concord NH Merrimack County, Community Panel Number 330013C0337E. Revised April 19, 2010. These elevations are based on the National Geodetic Vertical Datum of 1988 (NGVD 88). For the purpose of this petition NESC TABLE 232-1 the 10-year flood elevation was used as the basis for design of the conductor clearance.
7. Using the above design criteria, the maximum sag of the non- supporting cable and minimum clearances for the crossing are as follows. The proposed wire will be constructed 12" below the existing cable television line and above the existing phone cable. The required NESC Table 232-1 from the lowest wire is 25.50' to the 10 year water elevation, the measured distance to the lowest wire is 26.24', the distance of our proposed wire is 27.40' to the 10 year water elevation.
8. There are no NHDES or NHDOT permits necessary specifically for the construction of the crossing.
9. The proposed crossing has been designed and will be constructed, maintained and operated by TDS Telecom, its affiliates and contractors.
10. TDS submits that the license petitioned for herein may be exercised without substantially affecting the rights of the public in the crossing of the Merrimack River. Minimum safe line clearances above the water surface will be maintained at all times. The use and enjoyment by the public of the river will not be diminished in any material respect as a result of the overhead line crossing.

WHEREFORE, TDS Telecom respectfully requests that the Commission:

- a. Find that the license petitioned for herein may be exercised without substantially effecting the public rights in the public water which are the subject of this petition;
- b. Grant TDS Telecom a license to construct and maintain communication lines over and across the public waters of the Merrimack River in Boscawen, NH as specified in this petition; and
- c. Issue an Order Nisi and orders for its publication.

Respectfully submitted,
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Attachments: Cable sag calculations