

**PUBLIC NOTICE**

**STATE OF NEW HAMPSHIRE  
PUBLIC UTILITIES COMMISSION  
DT 12-089**

**Kearsarge Telephone Company d/b/a TDS  
Telecom**

Petition for Authorization to Construct and Maintain Telecommunications Lines Over and Across the Merrimack River in the Town of Boscawen

**NOTICE OF ORDER NO. 25,421  
October 8, 2012**

**SUMMARY OF ORDER**

On April 9, 2012, TDS Telecom (TDS) filed a petition pursuant to RSA 371:17 requesting a license to construct and maintain fiber optic cables over and across public waters of the Merrimack River in the Town of Boscawen. According to the petition, the proposed crossing will be placed between existing utility poles.

The location of the crossing is as follows:

The Merrimack River in Boscawen, between utility pole CE21 NET 27/18 on the western side of the river near Commercial Street and utility pole CE1 NET 27/19 on the eastern side of the river near Hannah Dustin Drive.

The petition, subsequent docket filings, and a copy of the entire Order are posted to the Commission's website at <http://www.puc.nh.gov/Regulatory/Docketbk/2012/12-089.html>.

Staff reviewed the petition and conducted discussions with TDS, then subsequently filed a memorandum finding the proposed construction and sagging design to be in conformance with the applicable sections of the National Electrical Safety Code. Staff recommended approval of TDS's petition, subject to certain conditions related to ensuring the safe operation and maintenance of the proposed crossings, and the resubmission of the petition with corrected pole information.

Based on the information presented in TDS's petition and Staff's memorandum, the Commission finds the proposed crossings necessary for TDS to meet the reasonable requirements of reliable service to the public within TDS's authorized service territory, and that the requested license may be exercised without substantially affecting the public rights in the affected public waters. The petition is therefore approved on a nisi basis, subject to the conditions recommended by Staff and contained in the full Order at the link referenced above.

All persons interested in responding to this Order Nisi be notified that they may submit their comments or file a written request for a hearing which states the reason and basis for a hearing no later than October 25, 2012 for the Commission's consideration; and any party interested in responding to such comments or request for hearing shall do so no later than November 1, 2012. This Order Nisi shall be effective November 7, 2012, unless the Petitioner fails to satisfy the publication obligation set forth in the full order or the Commission provides otherwise in a supplemental order issued prior to the effective date.

October 11





October 9, 2012

Boscawen Town Clerk  
116 North Main Street  
Boscawen, NH 03303

RE: Public Notice regarding Kearsarge Telephone Company's Cable Placement in  
Boscawen, NH.

Dear Sir/Madame,

The New Hampshire Public Service Commission has requested that we provide you with a copy of this order regarding our company's project to place cables across the river in Boscawen, NH.

If you have any questions, please contact me at 802-793-6730.

Sincerely,



Thomas Murray  
Manager State Government Affairs  
TDS Telecom



October 9, 2012

US Department of Commerce  
Office of Secretary  
1401 Constitution Ave  
Washington, DC 20230

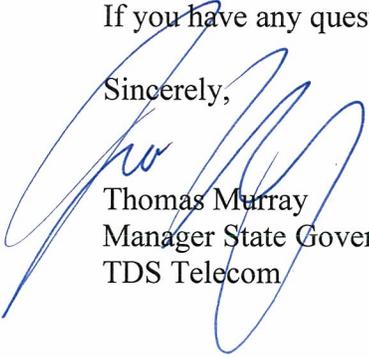
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Manager State Government Affairs  
TDS Telecom



October 9, 2012

New Hampshire Attorney General  
33 Capitol Street  
Concord, NH 03301

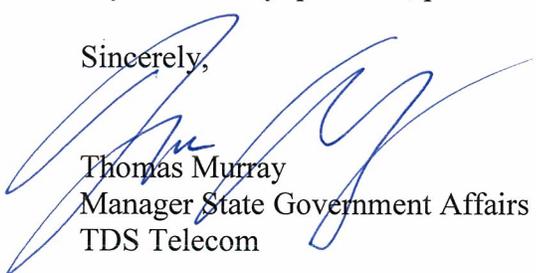
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Thomas Murray  
Manager State Government Affairs  
TDS Telecom



October 9, 2012

New Hampshire Department of Transportation  
PO Box 483  
Concord, NH 03302-3734

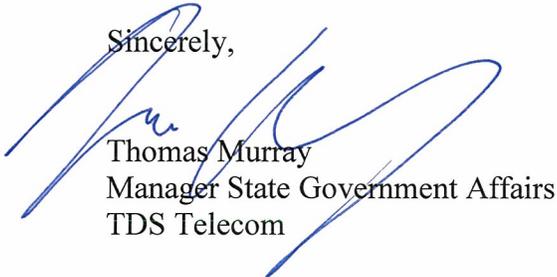
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Sincerely,

A handwritten signature in blue ink, appearing to read "Tom Murray", written over the typed name and title.

Thomas Murray  
Manager State Government Affairs  
TDS Telecom



**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 Unifil Electric and Fairpoint Communications. The existing poles are 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 27/19 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 5418 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,  
Kearsarge Telephone dba. TDS Telecom  
Tom Murray Manager State Government Affairs  
24 Depot Sq. Unit 2  
Northfield. VT 05603

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Attachments: Cable sag calculations

ALUMINUM COMPANY OF AMERICA SAG AND TENSION DATA

BOSCOWEN MERRIMACK RIVER  
TDS Telecom

Conductor Nominal Diameter 5/16x 7 Strand Steel EHS

Area= .0595 Sq. In Dia= .312 In Wt= .205 Lb/F RTS= 11200 Lb  
Data from Chart No. 1-1293  
English Units

Span= 448.5 Feet NESC Heavy Load Zone  
Creep is NOT a Factor

Design Points			Final		Initial			
Temp	Ice	Wind	K	Weight	Sag	Tension	Sag	Tension
F	In	Psf	Lb/F	Lb/F	Ft	Lb	Ft	Lb
0.	.50	4.00	.30	1.434	7.94	4547.	7.94	4547.
32.	.50	4.00	.00	.834	5.75	3651.	5.62	3734.
-20.	.00	.00	.00	.205	1.46	3536.	1.41	3653.
0.	.00	.00	.00	.205	1.54	3351.	1.48	3483.
30.	.00	.00	.00	.205	1.68	3074.	1.60	3227.
60.	.00	.00	.00	.205	1.84	2800.	1.74	2970.
90.	.00	.00	.00	.205	2.04	2530.	1.90	2714.
120.	.00	.00	.00	.205	2.28	2265.	2.10	2460.
167.	.00	.00	.00	.205	2.76	1866.	2.49	2075.
212.	.00	.00	.00	.205	3.40	1515.	2.99	1727.

Above: Initial Data Prior to Cable Installation

Below: 1 Non-Supporting Cable(s) Added, Dia= .400 In ,Wt= .047Lb/F+ .006Lb/F

0.	.50	4.00	.30	2.202	10.30	5392.	10.30	5392.
32.	.50	4.00	.00	1.602	8.87	4550.	8.67	4656.
-20.	.00	.00	.00	.258	1.82	3560.	1.68	3847.
0.	.00	.00	.00	.258	1.92	3376.	1.76	3680.
30.	.00	.00	.00	.258	2.09	3104.	1.89	3427.
60.	.00	.00	.00	.258	2.28	2836. *	2.04	3175.
90.	.00	.00	.00	.258	2.52	2573.	2.22	2923.
120.	.00	.00	.00	.258	2.80	2316.	2.42	2673.
167.	.00	.00	.00	.258	3.35	1936.	2.82	2293.
212.	.00	.00	.00	.258	4.03	1607.	3.32	1949.

\* Design Condition

The table above shows sag and tension data for cable mounting points at the same elevation resulting in a sag point at mid-span and equal tension at each attachment point. Due to different ground elevations at either end of the actual span, the attachment point elevations will be approximately 6.71 feet different. Adjusting for this difference in elevation, the sag and tension values will be as follows (refer to attached plan for graphic representation):

Pole #2 – CE21 NET 27/18  
Pole #1 – CE1 NET 27/19

Located on West Side  
Located on East Side

Distance from Pole #2 to Sag Point = S1 = 263.53 ft.  
Distance from Pole #1 to Sag Point = S2 = 184.97 ft.

Tension at Pole #2 = 5407 Lbs, which is 48.27% of the rated strength of the messenger cable.  
Tension at Pole #1 = 5393 Lbs, which is 48.15% of the rated strength of the messenger cable.  
NESC guidelines recommend tension not exceed 60% of rated cable strength.

Elevation at Sag Point = 276.90, which is 28.40 feet above the 10 Year flood elevation of the Merrimack River at this location.

This crossing is located near Commercial Street on the West side of the river and near Hannah Duston Drive on the East side of the river.