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August 6, 1998

Mrs. Blanca S. Bayó  
Director, Division of Records and Reporting  
Florida Public Service Commission  
2540 Shumard Oak Boulevard  
Tallahassee, FL 32399-0850

Re: Docket No. 980696-TP (HB4785) Universal Service

Dear Ms. Bayó:

On August 3, 1998, BellSouth Telecommunications, Inc. filed Direct Testimony of several witnesses, including D. Daonne Caldwell. A page was missing from the Bench Mark Cost Proxy Model 3.1 that is the attachment to Ms. Caldwell's Testimony. In that regard, I have enclosed an original and fifteen copies of the missing page bate stamped 000025, which we ask that you file in the captioned matter.

A copy of this letter is enclosed. Please mark it to indicate that the original was filed and return the copy to me. Copies have been served to the parties shown on the attached Certificate of Service.

ACK  \_\_\_\_\_  
AFA 2 \_\_\_\_\_  
APP \_\_\_\_\_  
CAF \_\_\_\_\_  
CMU King \_\_\_\_\_  
CTR \_\_\_\_\_  
EAG \_\_\_\_\_  
LEG 2 NBW/vf  
LIN 5 \_\_\_\_\_  
OPC \_\_\_\_\_ cc: All parties of record  
RCH \_\_\_\_\_ A. M. Lombardo  
SEC 1 R. G. Beatty  
WAS \_\_\_\_\_ William J. Ellenberg  
OTH \_\_\_\_\_

Sincerely,

*Nancy B. White (re)*

Nancy B. White

RECEIVED & FILED

FPSC-BUREAU OF RECORDS

DOCUMENT NUMBER-DATE

08390 AUG-68

FPSC-RECORDS/REPORTING

### *BCPM 3.1 Model Methodology*

At the terminating switch, the terminating call number is translated to a customer location. The terminating switch generates a ringing signal to the terminating location. In this case, the signal follows a path in the switch to a digital channel of a fiber optic feeder route to a remote terminal. At the remote terminal the optical channel signal is converted into a digital electrical signal, and then converted to an analog electrical signal on the pair of copper wires that connects through an FDI, distribution cables, terminals, drop wire, and NID at the terminating location. The phone at the receiving location rings, at which point the receiving party may pick up his or her phone, completing the call.

### **3.2 Technical Capabilities of the BCPM 3.1 Network**

BCPM 3.1 designs a voice grade network using state-of-the-art technology that is currently available for deployment. The BCPM 3.1's default values and parameters provide a network capable of providing basic single-party voice grade service that allows customers to utilize currently available data modems for dial-up access. BCPM 3.1 designs the network to eliminate problems associated with providing voice grade service over loaded loop plant.

In order to design a least cost network that provides adequate transmission capabilities for fax and dial-up modems, BCPM 3.1 designs an outside plant system that typically limits the total copper loop length, from the customer to the wire center, to 12,000 feet. This eliminates problems arising from loading and resistance. Where total loop length from the wire center to the customer exceeds 12,000 feet, BCPM 3.1 uses fiber cables in the feeder. 12,000 foot copper/fiber breakpoint is user adjustable and should be based on the user's specific cost characteristics. Options for the breakpoint are 9,000, 12,000, 15,000 and 18,000 feet. CSA engineering guidelines do not recommend copper loop lengths greater than 12,000 feet, because of excessive electrical resistance in these longer cables.

BCPM 3.1 uses 26/24 gauge cable in distribution. 12,000 ft of 26 gauge copper has a resistance value of 999.6 ohms (83.3 ohms per thousand feet @ 68deg.), well within the 1500 ohm supervisory limit of today's digital switches. The 26/24 gauging used in the distribution takes into account the industry standard 900 ohm Carrier Serving Area (CSA) design criteria<sup>17</sup> of no more than 12,000 feet of copper regardless of gauge. In the

<sup>17</sup> Lucent Technologies Outside Plant Engineering Handbook, at 13-1.

**CERTIFICATE OF SERVICE  
DOCKET NO. 980696-TP (HB4785)**

I HEREBY CERTIFY that a true and correct copy of the foregoing was served via Federal Express this 6th day of August, 1998 to the following:

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(+) Protective Agreements