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Enclosure

September 26, 2003

Ms. Blanca S. Bayó, Director
Division of the Commission Clerk
& Administrative Services
Florida Public Service Commission
2540 Shumard Oak Boulevard
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Re: Docket No. 981834-TP & 990321-TP

Dear Ms. Bayó:

Enclosed for filing on behalf of Sprint are the original and 15 copies of the following:

- 09288-03 1. Surrebuttal Testimony of Jimmy R. Davis and, Non-Proprietary Exhibits JRD-3 through JRD-10
- 09289-03 2. Non-Proprietary Surrebuttal Testimony of Randy G. Farrar, including Non-Proprietary Exhibits RGF-1 & RGF-2.
- 09290-03 3. Sprint's Requests for Confidential Classification.

In addition, pursuant to staff's direction, Sprint is filing the following:

- 09292-03 4. Two redacted hard copies of revised Exhibit JRD-2 and one CD-ROM containing the redacted Exhibit JRD-2.

Copies are being served on the parties in this docket via US mail.

Please acknowledge receipt of this filing by stamping and initialing a copy of this letter and returning same to the courier. If you have any questions, please do not hesitate to call me at 850/599-1560.

Sincerely,

Susan S. Masterton

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**CERTIFICATE OF SERVICE
DOCKET NO. 981834-TP & 990321-TP**

I HEREBY CERTIFY that a true and correct copy of the foregoing was served by electronic mail & U.S. mail this 26th day of September, 2003 to the following:

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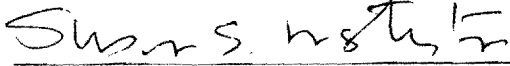
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Susan S. Masterton

BEFORE THE PUBLIC SERVICE COMMISSION

SURREBUTTAL TESTIMONY OF

Jimmy R. Davis

September 26, 2003

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Exhibits

- Revised JRD-2 Revised collocation rate schedule and cost study (proprietary)
- JRD – 3 Net Present Value Comparison Sprint versus Verizon and BellSouth
- JRD – 4 Comparison of Access Lines, Plant Investment and CO Size
- JRD – 5 DC Power Utilization by ALECs
- JRD – 6 Abandoned Collocations in Sprint's Territory (proprietary)
- JRD – 7 Indexed Building Investment Cost for Sprint
- JRD – 8 Security Investments for Sprint Offices in Florida
- JRD – 9 Floor Space Utilization Factor Analysis
- JRD – 10 Ground Bar Quotes

1 **INTRODUCTION**

2

3 **Q. Please state your name, place of employment, and business address.**

4 A. My name is Jimmy R. Davis. I am employed by Sprint/United Management
5 Company as a Senior Manager – Network Costing at 6450 Sprint Parkway,
6 Overland Park, Kansas 66251. I am testifying on behalf of Sprint-Florida,
7 Incorporated and Sprint Communications Company Limited Partnership
8 (hereafter collectively referred to as “Sprint” or the “Company”).

9 **Q. Are you the same Jimmy R. Davis who previously filed direct and rebuttal**
10 **testimonies in this case?**

11 A. Yes.

12 **Q. What is the purpose of your Surrebuttal Testimony?**

13 A. I am introducing a Revised Exhibit JRD-2 which is Sprint’s collocation cost study
14 and associated element rate list. Revised Exhibit JRD-2 replaces the original
15 Exhibit JRD-2, which was included with my direct testimony submitted on
16 February 4, 2003. This revised study incorporates changes in the COR percentage
17 for cross connect and power cable removal as explained in Sprint’s Response to
18 Staff’s Interrogatory Number 72 part b. The revised study also reflects a
19 recalculation of Sprint’s floor space rate which is explained in detail later in my
20 testimony. In addition, I will respond to the Rebuttal Testimony of AT&T
21 witness Mr. Steve Turner in a number of costs related areas. Specifically, my
22 testimony deals with Mr. Turner’s comments relating to the use of BellSouth’s
23 collocation cost model as a common model in the state of Florida and his
24 recommendation of using the same cost inputs for all three ILECs. Sprint’s
25 witness Randy Farrar also addresses issues relating to Mr. Turner’s proposal in

1 his Surrebuttal Testimony, also filed today. I will also respond to the rebuttal
2 testimonies of Staff witnesses Dr. David Gabel and Mr. Roland Curry regarding
3 their comments on Sprint's cost inputs and study methodologies for various
4 collocation rate elements.

5

6 **Net Present Value Analysis is a Simple Solution to Cost Comparisons**

7 **Among ILECs With Different Collocation Models**

8

9 **Q. On page 3 of his Rebuttal Testimony (lines 20 – 22), Mr. Turner claims that**
10 **the use of three different collocation cost models makes it “almost**
11 **impossible” to compare collocation costs. Do you agree with Mr. Turner’s**
12 **claim?**

13 A. No, not at all. As an operating ALEC, Sprint routinely analyzes collocation costs
14 of various ILECs in multiple states. In these analyses, Sprint deals with all types
15 of variations in collocation cost structures.

16 **Q. What types of variations in cost structures does Sprint encounter?**

17 A. As expected there is the mix of one time non-recurring charges (NRCs) and
18 monthly recurring charges (MRCs). Some ILECs recover certain costs up front
19 through NRCs while others shift those costs to MRCs and recover them over time.
20 In addition, some ILECs recover certain NRCs (e.g. project planning) on a per
21 square foot basis as opposed to on a per job basis. Yet another example is that
22 while some ILECs (like SBC and Verizon) recover cost for HVAC as a function
23 of DC amps ordered, others recover HVAC through their floor space rate.

24 **Q. On page 10 of his Rebuttal Testimony, Mr. Turner advocates the use of the**
25 **BellSouth Collocation Model as the standard model for collocation pricing in**

1 **Florida. Should the Florida Commission order the use of the BellSouth**
2 **Collocation Costs model in Florida, won't ALECs like Sprint who operate in**
3 **numerous states including Florida still have to contend with multiple**
4 **collocation cost models?**

5 A. Yes, certainly. BellSouth only operates in the southeastern United States, so even
6 if their model were the standard model in all of their states that would not address
7 the fact that ALECs who operate both within and beyond the southeast would still
8 contend with multiple models. In addition to BellSouth, Sprint's ALEC operation
9 purchases collocation from Qwest, SWBT, Verizon-Bell Atlantic, Verizon-GTE,
10 PacBell, and Ameritech all of which have differing collocation rate structures.

11 **Q. So how does Sprint manage the variations of collocation cost structures**
12 **among ILECs in various states?**

13 A. It's quite simple really. Net Present Value (NPV) comparisons are used by Sprint
14 to shift NRCs and MRCs into a common point in time. Sprint makes comparisons
15 on a year-by-year and an accumulative basis.

16 **Q. Has Sprint made NPV comparisons as part of this proceeding?**

17 A. Yes. Exhibit JRD-3 contains NPV comparisons between Sprint and Verizon for
18 two of the five physical collocations provided to Staff in Sprint's Response to
19 Staff's Interrogatory Number 1. Sprint used Verizon's Response to Staff's
20 interrogatories Numbers 224 and 225 to Verizon in which Staff asked Verizon to
21 select the collocation rate elements needed to provision the two Sprint physical
22 collocations. Sprint did have to make a few adjustments to what Verizon
23 identified as necessary elements for the Sprint collocations however to ensure that
24 all costs like cage ground bar (Verizon element 10) and DC power and cross
25 connect cable material (represented by Verizon elements 100 through 111) were

1 accounted for. Exhibit JRD – 3 also contains similar NPV comparisons between
2 Sprint and BellSouth, which involve key assumptions explained below.

3 **Q. Could the Florida Commission Staff use NPV analysis to compare collocation**
4 **costs among the three ILECs in this case?**

5 A. Yes. Through discovery, Staff asked all three companies for similar information
6 regarding their last five physical and virtual collocations. Furthermore, Staff
7 asked all three ILECs to select collocation elements from their own cost structures
8 necessary to provision selected collocations of the other two. Caution must be
9 exercised however when making comparisons with BellSouth because under the
10 BellSouth collocation cost structure, ALECs provision their own DC power and
11 cross connect cables using BellSouth approved vendors. It should be noted that
12 for collocations in BellSouth central offices, ALECs also provide all DC power
13 and cross connect cable materials and bear the cost of engineering and project
14 planning outside of BellSouth’s cost structure. The comparisons between Sprint
15 and BellSouth on Exhibit JRD–3 incorporate Sprint’s costs from its collocation
16 cost study for the cost components borne by the ALEC. The investment costs
17 included in Sprint’s collocation cost study from cross connects (recovered as
18 MRCs by Sprint) are incorporated as NRCs for the purpose of comparison with
19 BellSouth.

20

21 **Sprint’s Set of Collocation Elements is Comprehensive**

22

23 **Q. On page 10, line 25 of his Rebuttal Testimony, Mr. Turner asserts that**
24 **Sprint’s collocation rate list is “extremely limited” and “does not begin to**

1 **address all the necessary rate elements for collocation?”. Do you agree with**
2 **this assertion?**

3 A. Absolutely not! Sprint has provided more than 700 collocations system wide and
4 has fulfilled all ALEC requests for collocation rate elements. As can be seen in
5 Sprint’s Response to Staff’s Interrogatories Numbers 54 and 55, many of Sprint’s
6 elements encompass multiple elements of Verizon and Bell. For example,
7 Sprint’s single collocation element for floor space covers the cost of Verizon’s
8 elements of Floor Space (element 36 or 37), Space Modification (element 34),
9 Environmental Conditioning (element 35), and Cage Ground Bar (element 10), all
10 of which are necessary to provide collocation. In like manner, Sprint’s
11 collocation element for DS0 cross connects encompasses Verizon’s elements of
12 Overhead Superstructure (element 11), Facility Pull (element 13), DS0
13 Termination (element 15), Cable Rack Shared Space (element 44), Facility
14 Termination (element 47), and Facility Cable –DS0 Cable (element 100), all of
15 which are necessary to provide collocation. Sprint’s collocation rate element lists
16 are reviewed by both Sprint wholesale and Sprint ALEC operations for
17 completeness. Furthermore, our experience tells us that ALECs like a more
18 simple, straightforward rate structure. As an ALEC, Sprint advocates simplicity
19 because it facilitates invoice auditing. Even Mr. Turner calls collocation
20 “straightforward” (p 9, ln14), and Sprint sees no reason to complicate matters by
21 having an unnecessarily complex rate structure.

22 **Q. Has AT&T provided information on what specific collocation elements it**
23 **believes are missing from Sprint’s rate list?**

24
25

1 A. Yes. AT&T listed what they believe are missing collocation elements in its
2 Response to Staff's Interrogatory to AT&T Number 79.

3 **Q. What comments does Sprint want to make concerning AT&T's list of**
4 **"missing" elements provided in their response to Staff's Interrogatory to**
5 **AT&T number 79 part a) dealing with physical collocation?**

6 A. First, AT&T listed a series of 13 "disconnect only" rate elements. Sprint
7 considers mass service disconnection to be a part of the decommissioning process.
8 As described in under my direct testimony for issue 1C (pages 3 and 4), should an
9 ALEC request to decommission a collocation site, Sprint's major augmentation
10 fees would apply. If however, an ALEC loses a customer prior to
11 decommissioning, Sprint may apply its UNE loop disconnect rates approved
12 under Docket 990649-TP. Next, AT&T listed an element for a "2 fiber cross
13 connect" (BellSouth element number H.1.31) for which Sprint has never received
14 a request. Sprint's experience is that ALECs prefer to have redundancy with their
15 fiber services which require a 4 fiber cross connect. Furthermore, BellSouth's
16 rate elements for 2 and 4 fiber cross connects cover only jumper work since all
17 cross connect cabling in BellSouth's collocation arrangements is self-provisioned
18 by the ALEC. AT&T listed the BellSouth element called a "power reduction fee"
19 (BS Element H.1.60). Sprint covers this need as a minor augment if only fuses
20 need changing or as a major augment if DC power connections need altering.
21 Then, AT&T listed a series of 5 Copper Entrance Cable related elements which
22 are covered under Sprint's "Internal Cable Space" and "Internal Cable" elements.
23 Finally, AT&T listed a series of adjacent and remote collocation rate elements as
24 part of its Response to Staff's Interrogatory to AT&T Number 79 part a). To
25 date, Sprint has not provisioned adjacent or remote collocation in any of its

1 operating territories in any state and has no cost-based data upon which to base
2 standard rates. These collocation arrangements are not common, nor are they
3 standard and therefore do not lend themselves to developing accurate generic
4 rates. Due to the variability of configurations involved in adjacent and remote
5 terminal collocation, Sprint proposes to cost adjacent or remote collocation on an
6 individual case basis.

7 **Q. Is Sprint's rate element for internal cable – per 100 pair copper stub cable**
8 **intended for virtual collocation only?**

9 A. Yes, and for good reason. Sprint's policy is for all copper entrance facilities to
10 terminate on Sprint's mainframe to ensure the proper protection from the
11 remainder of the office from lightning surges and electromagnetic interference.
12 Since the copper cable is terminated on Sprint's mainframe, Sprint's policy is to
13 perform all associated maintenance. If copper entrance facilities were categorized
14 as physical collocation, the implication would be that the ALEC would perform
15 the maintenance.

16 **Q. What comments does Sprint want to make concerning AT&T's list of**
17 **"missing" elements provided in its Response to Staff's Interrogatory to**
18 **AT&T Number 79 part b) dealing with virtual collocation?**

19 A. AT&T listed a series of (eight) "disconnect only" rate elements. Again, Sprint
20 considers mass service disconnection to be a part of the decommissioning process.
21 The only other element listed by AT&T under its Response to Staff's
22 Interrogatory 79 part b) was 2-wire cross connects for virtual collocation.
23 BellSouth's cross connect related elements (H.1.9 through H.1.12) only cover the
24 actual "jumper" which connects the ILEC owned UNE loop with the ALEC
25 owned interoffice cross connect cabling. Under BellSouth's model, the ALEC

1 self provisions all cross connect and power cabling. Sprint achieves cost recovery
2 for 2 wire cross connects using UNE loop NRC's approved under Docket 990649-
3 TP.

4

5 **Collocation is Significantly More Risky Than Other UNEs**

6

7 **Q. On page 11 of his Rebuttal Testimony, Mr. Turner states that since**
8 **collocation is the vehicle used for ALECs to obtain access to UNE loops, "it is**
9 **only reasonable that the same cost factors that are used to establish the cost**
10 **for unbundled elements should be used to establish the costs for**
11 **collocation...". Do you agree?**

12 **A.** No. There are significant differences between collocation as a UNE and the UNE
13 loops ALECs gain access to through collocation. First of all, as explained in
14 Sprint's Response to Staff's Interrogatory Number 74 and in my Rebuttal
15 Testimony (Davis Rebuttal page 7, line 13 through page 8, line 7), collocation
16 arrangements are uniquely designed and built to meet a particular ALEC's
17 specific needs. Conversely, UNE loops are not built for the ALEC at all; rather,
18 they are built by the ILEC in the normal course of business for the purpose of
19 serving an end user. Should an ALEC discontinue service, the ILEC can use the
20 same loop to serve the end customer. Collocation arrangements, on the other
21 hand, are of no use to Sprint in serving the end customer. Once an ALEC has
22 discontinued use of its collocation arrangement, if not sold to another ALEC, it
23 will likely have to be decommissioned or redesigned and re-built. In any
24 scenario, collocation arrangements are of no use to the ILEC.

25

1 **Q. What collocation cost inputs did Sprint modify as a result of the unique**
2 **nature of collocation arrangements as opposed to the UNEs associated with**
3 **Docket Number 990649 – TP?**

4 A. As explained in Sprint’s Response to Staff’s Interrogatory Number 11, the
5 depreciation lives were reduced to reflect the most current lives supported by
6 Sprint. Sprint considers this to be a very conservative adjustment given that over
7 half of the collocations built by Sprint since 1996 have already been abandoned as
8 reported in Sprint’s Response to Staff’s Interrogatory Number 69. In addition,
9 Sprint used actual decommissioning work order cost to arrive at an appropriate
10 cost of removal for collocation cable elements (power and cross connect). These
11 elements in particular are costly to remove as compared to their investment value;
12 therefore, a higher cost of removal percentage is appropriate to match cost
13 recovery with cost causation. This added cost of removal is discounted, however
14 to reflect that removal costs are incurred in a future period.

15

16 **The BellSouth Model Will Not Meet Sprint’s Needs for Costing Collocation**

17

18 **Q. As stated earlier, Mr. Turner advocates the use of the BellSouth Collocation**
19 **Model as the standard model for collocation pricing in Florida. Does the**
20 **BellSouth Company Specific Collocation Model meet Sprint’s needs for cost**
21 **recovery?**

22 A. No. Several types of costs incurred by Sprint in the course of ALEC collocation
23 are missing from BellSouth’s Collocation Model. This is of a particular concern
24 given BellSouth’s Response to Staff’s Interrogatory to BellSouth Number 112
25 which asked about adding collocation elements to BellSouth’s cost model.

1 BellSouth's reply was that "the user is not able to modify the structure of
2 the study by adding or deleting elements".

3 **Q. Please provide examples of collocation costs incurred by Sprint, that are
4 absent in BellSouth's company specific model.**

5 A. As mentioned above, the BellSouth model assumes the ALEC self provisions its
6 DC power cable connections (Sprint elements 13 – 19 on page 5 of 107 in Exhibit
7 JRD-2) using BellSouth's approved vendors. Furthermore, BellSouth's model
8 assumes the ALEC provides their own cross connect cable material (for DS0,
9 DS1, and DS3) and installation labor for cross connects. Other cost elements
10 excluded from BellSouth's model are: Project Management Fees for collocation
11 build outs (either direct billed from the approved vendor to the ALEC or absorbed
12 by the ALEC), shared and common space in its floor space rate element and
13 manhole, conduit and cable vault space for its cable entrance facilities.

14 **Q. On page 7, lines 6-8 of his Rebuttal Testimony, Mr. Turner makes a
15 statement that all cost models "develop the investment for the particular
16 component including any installation cost and related support investments".
17 Does BellSouth's model build investments for BellSouth's collocation rate
18 elements?**

19 A. No. The BellSouth model does not build investments. As an example, the DC
20 power plant investment per amp is developed as a separate study and is
21 incorporated as an input into the BellSouth model as opposed to being developed
22 within the BellSouth model.

23 **Q. In contrast to the BellSouth model, how does Sprint's collocation cost model
24 develop the DC power investment per amp?**

1 A. Sprint's model starts with equipment costs for the individual components of a DC
2 power plant and builds the cost of each size of plant based on design criteria
3 provided by a Sprint DC power engineer. Engineering and installation labor is
4 added to provide a complete investment cost per amp for various sizes of the DC
5 power plants used in Sprint's ILEC territory (see Workpaper 5.0 of Revised
6 Exhibit JRD-2). Finally, a weighted average investment per amp is developed
7 using actual DC power plant sizes for each central office in Sprint's Florida
8 operation. Thus, Sprint's collocation cost model does "develop the investment for
9 the particular component including any installation cost and related support
10 investments" which is the structure Mr. Turner says all cost models have (Turner
11 Rebuttal page 7, lines 6-7). If Sprint were to use the BellSouth model, Sprint
12 would have to separately develop an investment cost per DC amp as does
13 BellSouth.

14

15 **Using the Same Inputs for All Three ILECs is Not Appropriate**

16

17 **Q. On page 15, lines 4 - 11 of his Rebuttal Testimony, Mr. Turner recommends**
18 **that all three ILECs in this case use the same cost inputs that he recommends**
19 **for BellSouth. Is this appropriate?**

20 A. No. The three ILECs in this case are vastly different in their size on a system
21 wide basis and have different economies of scale for their central office switching
22 centers within the state of Florida.

23 **Q. How does the size of an ILEC on a system level influence its cost inputs?**

24 A. Larger corporations have greater purchasing power than smaller ones due to the
25 volume of their purchases.

1 **Q. What impact do differing economies of scale in central office switching**
2 **centers have on costs?**

3 A. Larger switching centers lead to larger DC power plants which can be constructed
4 at a much lower cost per amp than smaller DC power plants. This is evidenced by
5 the relative comparison of DC power plant investment per amp on work paper 5.0
6 of Revised Exhibit JRD-2. Even though many of the components (rectifiers,
7 batteries, etc) used to build the various sizes of DC power plants cost the same,
8 combining these components into larger DC power plants lowers the cost per
9 amp. In addition, larger central office switching centers require larger central
10 office buildings which can also be built at a lower cost per square foot than
11 smaller central office buildings. Mr. Turner alludes to his understanding of these
12 principles on page 22, lines 23-26 of this Rebuttal Testimony as he compares the
13 relative sizes of BellSouth and ALECs by mentioning the “economies which
14 BellSouth enjoys”.

15 **Q. What evidence can you present to demonstrate size and economies of scale**
16 **differences among the three ILECs?**

17 A. The top portion of Exhibit JRD-4 is a comparison of the number of access lines
18 each of three ILECs have in the state of Florida as well as throughout their multi-
19 state operations. This exhibit clearly shows that although Verizon and Sprint’s
20 Florida operations are of a similar size, Verizon is more than 7 times the size of
21 Sprint on a system wide level. Furthermore, BellSouth is roughly 3 times the size
22 of Sprint, both within the state of Florida and on a system wide basis. Size at the
23 system level is what determines purchasing power when it comes to buying the
24 necessary goods and services to provide service. A company which is 3 to 7
25 times larger than another will certainly have more purchasing power. Exhibit

1 JRD - 4 also provides a comparison showing the number of central office
2 switching centers by size for the three ILECs. This portion of the exhibit clearly
3 shows that BellSouth has at least 26 central office switching centers that are larger
4 than Sprint's largest central office switch. Furthermore, BellSouth has nearly 4
5 times as many central office switching centers in the range of 4,000 to 8,000
6 access lines which is representative of Sprint's largest central office switching
7 centers. ILECs with larger central office switching centers are able to place larger
8 quantities of DC power plant components at each location (batteries, rectifiers,
9 etc.) to achieve greater economies of scale.

10 **Q. Given the size differences in switching centers in Florida and overall lines**
11 **served on a system-wide basis, does Sprint enjoy the same economies of scale**
12 **as the other LECs in this case?**

13 A No. Sprint does not enjoy the economies of scale of either BellSouth or Verizon.
14 Because of less purchasing power, Sprint is not able to obtain equipment like DC
15 power plant (batteries, rectifiers, power boards, generators, etc), DC power cable,
16 and cross connect cable materials as cheaply as these larger ILECs. Furthermore,
17 Sprint's central office switching centers are not as large as BellSouth (or Verizon)
18 in the state of Florida and therefore cannot achieve the same efficiencies in DC
19 power plant and central office building construction.

20

21 **Mr. Turner's Recommended Cost Input for the AC Power Component of the DC**
22 **Power Rate per Amp is Incorrect.**

23

24 **Q. What is the AC power component of the DC power rate?**

1 A. As explained in my direct testimony for issue 6 (B), AC power is purchased from
2 an electric utility then converted to DC power (by rectifiers) within the DC power
3 plant. This issue was discussed extensively during the hearing on issues 1
4 through 8 for this case on August 11 and 12, 2003.

5 **Q. What is Mr. Turner's recommendation concerning the cost of the AC**
6 **component and on what does he base his recommendation?**

7 A. On page 28 of his Rebuttal Testimony (beginning with line 19), Mr. Turner points
8 to a U. S. Department of Energy report on AC power costs (Exhibit SET-5) and
9 recommends \$.053 per KWH as a cost input for AC power based on the 2002
10 actual revenue to electric utilities from consumers in the "Industrial" category
11 for the state of Florida.

12 **Q. What justification does Mr. Turner provide for his recommendation?**

13 A. Mr. Turner relies on his own experience and states that he is "confident in this
14 section" (page 29, line 1). He adds: "from experience I know that the incumbent
15 LECs tend to have AC power rates that are most closely approximated by the
16 rates in this column" (page 29, line 1). Later in the same paragraph he states that
17 "The bottom line, however, is that I have used the industrial category for 2002 in
18 identifying the appropriate AC kilowatt hour rate for BellSouth and the other
19 incumbents" (page 20, lines 6-8).

20 **Q. Is Mr. Turner's recommendation appropriate for Sprint?**

21 A. No. This recommendation is inappropriate for some very compelling reasons.
22 First, I consulted Ms. Charlene Harris-Russell with the US Department of Energy
23 who was listed as a contact on the web site associated with the report represented
24 by Exhibit SET-5 attached to Mr. Turner's testimony. According to Ms. Harris-
25 Russell, a telephone company's switching center would typically come under the

1 commercial use category. This fact was confirmed by interview with Sprint's
2 Energy Manager.

3 **Q. What rate per amp corresponds to the commercial category according to the**
4 **US Department of Energy?**

5 A. As can be seen on Mr. Turner's Exhibit SET-5 attached to his Rebuttal
6 Testimony, the actual revenue to electric utilities from users in the "Commercial"
7 category for 2002 in the state of Florida is \$.067 per KWH.

8 **Q. Has Sprint provided proof of its AC power costs?**

9 A. Yes. As a matter of fact, it was AT&T who requested cost support for Sprint's
10 AC cost input of \$ 0.0671 per KWH. In response to AT&T's Request for
11 Production of Documents Number 17 (provided March 14, 2003 more than a
12 month before Mr. Turner's testimony was filed), Sprint provided AT&T with an
13 analysis of actual electric bills (usage and cost) for the 12 month period from
14 October, 2001 through September, 2002 for 445 meter locations throughout
15 Sprint's territory in Florida amounting to more than 10,000 data points
16 (445*2*12). It is obvious that Mr. Turner completely ignored the extensive
17 factual data supplied by Sprint in response to AT&T's request. This cost analysis
18 strongly supports Sprint's cost of \$ 0.0671 per KWH which is identical to the
19 U.S. Department of Energy's reported revenue of \$ 0.067 per KWH for users
20 under the "Commercial" classification for 2002.

21 **Q. On page 29 of his Rebuttal Testimony, Mr. Turner makes mention of load**
22 **sharing arrangements with AC power providers where ILECs provide their**
23 **own AC power by running their generators periodically in exchange for a**
24 **lower rate. Does Sprint have any such arrangements?**

1 A. Yes. The savings resulting from these arrangements are reflected in Sprint's
2 actual cost analysis provided in our Response to AT&T POD Number 19.

3

4 **Sprint's Collocation Cost Model Provides Cost Recovery only if ALECs pay for the**
5 **DC Power They Order**

6

7 **Q. On page 31 (lines 1-19) of his revised Rebuttal Testimony, Mr. Turner states**
8 **that "While List 1 Drain is the current that the equipment draws when it is**
9 **operating at normal voltages, the equipment will not always draw that**
10 **current." Is this statement germane to DC power rate development?**

11 A. No. Sprint's DC power rate is developed with the intention of having the ALEC
12 pay for a share of the DC power plant base on the amount of DC power they
13 order. The ALEC can base their DC power needs on any criteria they wish;
14 however, the ALEC must pay for the DC power they order for Sprint to recover
15 its cost.

16 **Q. What are some of the key assumptions made by Sprint in its collocation cost**
17 **model for the development of a DC power rate per amp?**

18 A. Sprint's collocation cost model develops an investment cost per amp using the DC
19 power plant's capacity to supply power. A DC power plant's capacity is defined
20 by the number and size of rectifiers, batteries, power boards, generators, etc.
21 which make up the DC power plant's infrastructure. By ordering DC power, the
22 ALEC is telling Sprint how much of the DC power plant's capacity it wants to
23 serve its collocated equipment. Although the Sprint incurs the cost of building the
24 DC power plant up front, the investment cost per amp determined by Sprint's
25 collocation cost model is used to develop a **monthly** recurring charge rather than

1 a non-recurring charge per amp of DC power ordered by the ALEC. This gives
2 the ALEC the advantage of having no up front cost when placing an order for DC
3 power amps.

4 **Q. Also on page 31 (lines 23-24) of his revised Rebuttal Testimony, Mr. Turner**
5 **discusses metering of actual usage. Is metering of actual usage taken into**
6 **account in Sprint's collocation cost model?**

7 A. No. As stated previously, the investment in the DC power plant and its capacity
8 to provide DC power are variables used to determine the DC power rate per amp.
9 If the Florida Commission were to order the metering of DC power, Sprint's DC
10 power rate per amp would have to be adjusted upward to account for the gap
11 between the DC power plant capacity ordered by the ALEC and the DC power
12 actually used by the ALEC's equipment. Exhibit JRD-5 is a reproduction of
13 attachment "Staff POD 62-C-3" which was included as part of Sprint's response
14 to Staff's request for the Production of Documents Number 62. As can be seen
15 from the exhibit, the ALECs represented are only using 13.7% of the DC power
16 plant they ordered. Without an adjustment in the DC power rate per amp to
17 account for the difference between what an ALEC orders verses what it uses, the
18 ALEC will have no incentive to limit the DC power plant capacity it orders and
19 Sprint would bear the cost of the DC power plant infrastructure ordered but
20 unused by the ALEC. The over-ordering of DC power plant capacity will, as it
21 has in the past, drive Sprint to overbuild DC power plant. It is important to both
22 Sprint and the ALEC for the ALEC to order DC power in smaller increments with
23 the intention of being proportionate with its collocated equipment's DC power
24 needs.

25

1 **Q. Why is it important to the ALEC to order an amount DC power which is**
2 **proportionate with its equipment needs?**

3 A. To save money. If they order less, they pay for less. This holds true for both the
4 AC power component of the DC power rate as well as the component which
5 recovers the DC power plant investment made by the ILEC. In addition, Sprint is
6 willing to work with the ALECs on upsizing their DC power cables (while right-
7 sizing their fuses) which feeds their collocated equipment offering even more
8 savings on the NRCs related to installing DC power cable feeds.

9 **Q. Why is it important to Sprint for the ALEC to order an amount DC power**
10 **which is proportionate with their equipment needs?**

11 A. DC power plant capacity of a particular Central Office should be planned from a
12 community point of view. This means recognizing that Sprint and all the ALECs
13 housed in a particular central office are competing for the same customers. If the
14 DC power plant of a particular central office is shared properly, additions to DC
15 power plants should be more limited to growth in services actually purchased by
16 consumers rather than being driven by the over-ordering of DC power plant
17 capacity by ALECs. To help ensure that DC power plants are shared between
18 Sprint and the ALECs, the ALECs need to be given the financial incentives to
19 order DC power in smaller increments. If ALECs order DC power in smaller
20 increments, Sprint is given the opportunity to shift DC power plant capacity it no
21 longer needs to the ALEC as the ALEC grows. Meanwhile if the ALEC decides
22 to discontinue offering service, Sprint would not have to absorb the carrying cost
23 associated with DC power plant additions, driven by ALECs' over-ordering of
24 DC power. An ability to shift DC power plant capacity to whoever needs it as
25 they need it would lessen the need to charge the ALEC with an expensive up front

1 investment per amp in the form of a non-recurring charge to enable Sprint to
2 achieve full cost recovery of its DC power plant investment.

3 **Q. Can Sprint present evidence that ALECs have discontinued their collocations**
4 **after it has added capacity to DC power plants?**

5 A. Yes. Exhibit JRD-6 is a list of ALECs that have discontinued service in 4 Sprint
6 central offices. Also shown is the cost of DC power capacity added to these
7 offices.

8 **Q. How can the Florida Commission help to provide ALECs with the financial**
9 **incentive to be more efficient by ordering an amount DC power which is**
10 **proportionate with their equipment needs?**

11 A. By reinforcing that an ALEC is to pay for all DC power amps ordered.

12

13 **The Costs Included in Sprint's Rate Elements for AC Outlets and Overhead Lights**
14 **Are Not Already Included in its Floor Space Rate Element**

15

16 **Q. On page 23 of his Rebuttal Testimony, Dr. Gabel states that "it appears that**
17 **Sprint's building investment calculations already include the cost of**
18 **permanent fixtures such as overhead lighting and AC receptacles." Is Dr.**
19 **Gabel's comment correct?**

20 A. No. Both the AC receptacles and overhead lighting collocation elements are only
21 charged when applicable. As explained in Sprint's Response to Staff
22 Interrogatory Number 30, R. S. Means does in fact account for the cost of AC
23 outlets along the perimeter of a finished space (like along the permanent walls)
24 but the R.S. Means construction cost estimator does not account for AC outlets
25 that ALECs often add to their equipment bays which are located out in the middle

1 of the floor. In like manner, although R.S. Means does cover overhead lights,
2 Sprint has found that ALECs sometimes want to add additional lighting. Sprint
3 only charges for AC outlets and additional overhead lighting when ALECs
4 request these elements and Sprint incurs the cost. As can be seen in Sprint's
5 Response to Staff Interrogatory Number 1, ALECs do not always order these
6 elements, in that only three of five collocators ordered an AC outlet(s) while none
7 of the five collocators ordered additional overhead lights.

8

9 **Sprint's Floor Space Rate Development is TELRIC compliant**

10

11 **Q. What key characteristics of Sprint's floor space rate development cause it to**
12 **be TELRIC compliant?**

13 A. Sprint's floor space rate development using R.S. Means is based on the forward
14 looking cost (as opposed to embedded cost) of building a central office building
15 on a scale which fits the total demand for space by both the ILEC and the ALECs
16 sharing the space.

17 **Q. How does the use of forward looking cost and the scale of total demand affect**
18 **cost recovery?**

19 A. By using forward looking cost on a scale of total demand, Sprint's floor space rate
20 assumes that finished transmission space is available meaning that the cost for
21 routine site preparations for items like ductwork and cable rack extensions for
22 transmission space is accounted for. Therefore, unlike the other two ILECs in this
23 proceeding, Sprint does not have a separate rate element for "space preparation"
24 (e.g. BellSouth H1.41-H1.45) or "building modification" (e.g. Verizon element
25 No. 34).

1 **Q. What methodology for building floor space cost development does Staff**
2 **witness Dr. Gabel advocate?**

3 A. Staff witness Gabel endorses Verizon's indexing of embedded cost methodology.

4 **Q. Do you consider Verizon's methodology to be TELRIC compliant?**

5 A. No. Since embedded costs are being used, it is obviously not forward looking.
6 Even Dr. Gabel himself states that "this approach is somewhat inconsistent with
7 the FCC's pricing rules that require the use of forward -looking efficient
8 technology" (Gabel Rebuttal, page 8, lines 7-9).

9 **Q. Do you agree with Dr. Gabel's assertions that if embedded cost indexing is**
10 **used, the inclusion of space preparation cost for ALECs in the building**
11 **investment account negates the need for separate a rate element like**
12 **BellSouth's "space preparation" MRCs or Verizon's "building modification"**
13 **MRC?**

14 A. No. Using embedded cost while assuming all collocation related modification
15 costs are already accounted for would not fairly attribute the cost of preparing
16 collocation space to the ALECs. The investment associated with space
17 preparation for ALECs is very small compared to the investment cost of the entire
18 building and would therefore not have a material affect on the overall investment
19 cost per square foot. Under the Verizon methodology, ALECs should bear the
20 full cost of space preparation since they are the cost causers. Otherwise, ALEC
21 operations would be subsidized by the ILEC.

22

23

24 **Q. On pages 28 of his Rebuttal Testimony, Dr. Gabel recommends that Sprint**
25 **convert embedded building cost to current cost to duplicate the Verizon**

1 **methodology and to do so in central offices where collocation exists. Has**
2 **Sprint performed such an analysis?**

3 A. Yes, we have. Indexing the vintage data of the sample of offices shown on
4 Exhibit JRD-7 yielded a cost of \$227 which is higher than the cost derived from
5 R.S. Means (\$146 from lines 1 and 2 of Workpaper 4.0 of Revised Exhibit JRD-
6 2). This sample of central offices is from the same random sample used to
7 perform additional analysis on Sprint's floor space rate gross up factor discussed
8 later in my Surrebuttal Testimony.

9 **Q. What opinions are offered by ALEC and Staff witnesses concerning Sprint's**
10 **use of R. S. Means?**

11 A. AT&T witness Turner is a strong proponent of R.S. Means (Turner Rebuttal, page
12 45) while Staff witness Gabel is not. Mr. Turner speaks of R.S. Means as being
13 an independent verifiable source (page 46, line 6) that "has been used by state
14 Commissions and incumbents in developing investments for collocation". One
15 such Commission, as Mr. Turner reports (page 46), is the Texas Public Utilities
16 Commission. Dr. Gabel, on the other hand, criticizes R. S. Means while using a
17 disclaimer statement from a product other than R. S. Means (page 28, lines 10-
18 13)!! Witness Gabel's footnote number 28 on page 28 of his Rebuttal Testimony
19 reveals that his quoted disclaimer statement actually comes from the "2000
20 National Construction Cost Estimator" not R.S. Means. The act of criticizing one
21 product while using disclaimers from another constitutes an inappropriate use of
22 unrelated facts. This is similar to attempting to discredit the reliability of a
23 Toyota by quoting the repair occurrences of a Buick.

1 **Q. If the Florida Commission were to adopt Verizon’s methodology for floor**
2 **space rate structure, what additional collocation elements would Sprint need**
3 **to employ?**

4 A. As can be seen from Sprint’s Response to Staff’s Interrogatory Number 54 and on
5 the attached Exhibit JRD-3, Sprint’s floor space rate element encompasses
6 Verizon’s elements of: floor space, building modification, environmental
7 conditioning, and cage ground bar. These last 3 elements would need to be added
8 to Sprint’s collocation rate list.

9 **Q. If the Florida Commission were to adopt Verizon’s floor space rate, would**
10 **Sprint double recover for security systems as Dr. Gabel asserts on page 44,**
11 **lines 21-25?**

12 A. No. Sprint charges security systems to the Furniture and Office Equipment
13 Investment Account as opposed to the Building Investment Account; therefore,
14 Sprint’s security system investments added as a result of collocation are not
15 contained in the vintage data for the Building Investment Account.

16
17 **Gabel’s Criticisms of Sprint’s Floor Space Rate Development Contains Numerous**
18 **Inaccuracies**

19
20 **Q. On page 9 of his Rebuttal Testimony, Dr. Gabel states that “if a new *central***
21 ***office* building were to be constructed, it might be smaller than today’s**
22 **central offices” (clarification added). What are reasons this would not be**
23 **the case?**

24

1 A. Dr. Gabel was making reference to the trend towards smaller switching
2 equipment; however, that does not take into account the fact that additional space
3 is needed to house the ever growing number of systems necessary to provide
4 modern telecommunications including fiber systems, SS7 networks, digital cross
5 connects, and ATM networks. Furthermore, collocation itself adds to the general
6 requirements for space. However, even if newer central offices were smaller,
7 their cost per square foot would be higher which would offset the effects of
8 shorter cable runs.

9 **Q. Should Sprint's actual measurements for DC power and cross connect cables**
10 **be adjusted to reflect the assumption of a new building under R.S. Means as**
11 **Dr. Gabel suggests (Gabel Rebuttal, page 10, lines 4-6)?**

12 A. No. As just explained, Sprint does not see any valid reasons for why a new
13 central office building housing telecommunications network equipment would be
14 materially different in size as compared to an existing one. Furthermore, even if a
15 new building would actually be built, collocation would fairly be spread
16 throughout the central office as it is today. Sprint's Response to Staff Request for
17 the Production of Documents Number 20 shows a wide range of cable lengths for
18 both DC power feeds and cross connects clearly indicating that collocations are
19 indeed spread throughout Sprint's central offices.

20 **Q. On page 43, line 26 of his Rebuttal Testimony, Dr. Gabel comments that of**
21 **the 48 observations Sprint used for its security additive, only 2 were in the**
22 **state of Florida. Has Sprint since examined other security system costs in the**
23 **state of Florida?**

24

1 A. Yes we have. Exhibit JRD-8 provides a list of price quotes for security systems in
2 central office buildings in the state of Florida. As can be seen the overall average
3 investment per square foot for the Florida systems is \$ 2.63 while the overall
4 average investment per square for security systems used in Sprint's study is \$2.92.

5 **Q. Does this difference in cost have a material affect on Sprint's rate for floor**
6 **space?**

7 A. No. Since Sprint spreads the cost of the security system enhancement based on
8 the total usable square footage in the central office, as advocated by Dr. Gabel on
9 page 43 of his Rebuttal Testimony, the security additive accounts for less than 2
10 percent of Sprint's floor space rate. The difference of \$.29 per square foot
11 between the Florida specific security systems versus the security systems used in
12 the study accounts for a difference of less than 2 tenths of one percent (0.2%) in
13 Sprint's floor space rate.

14 **Q. On page 44, line 15, Dr. Gabel reported that Sprint's cost per square foot for**
15 **the security additive is \$.70 compared to \$ 0.0125 for BellSouth. In his**
16 **footnote 49 at the bottom of the page, he says that he arrived at his figure by**
17 **taking Sprint's additive for security and applying Sprint's annual charge**
18 **factor. Are Dr. Gabel's calculations correct?**

19 A. No. As their name implies, annual charge factors are used to calculate annual
20 charges. To arrive at a monthly recurring charge, the analyst must divide the
21 annual charge by twelve, which Dr. Gabel did not do. Dr. Gabel should have
22 reported \$0.70 divided by 12 or \$ 0.058 per square foot compared to Bell's
23 \$0.0125 per square foot.

24

1 **Q. Can the difference between Sprint's and BellSouth's cost per square foot for**
2 **security systems be explained?**

3 A. Certainly. If you take BellSouth's MRC cost and back into an investment per
4 square foot using BellSouth's ACF for buildings, you arrive at \$.77 per square
5 foot (.0125 / .1936 * 12 months per year). The average security investment per
6 square foot in Sprint's larger buildings is comparable to BellSouth's cost. As
7 shown on Exhibit JRD-4, BellSouth has much larger central office switching
8 centers/buildings than Sprint. Sprint simply does not have the same economies of
9 scale as does BellSouth.

10 **Q. What questionable comments does Dr. Gabel make concerning floor space**
11 **lease costs?**

12 A. Dr. Gabel cites comments from a North Carolina proceeding making reference to
13 an anomalously low historic floor space lease costs. What Dr. Gabel does not
14 mention however, is that three of the five leases cited are from extremely small
15 towns (two of which have populations of less than 300 people) and involve 30
16 year old leases with little to no provisions for inflationary increases. One other
17 lease was for a small remote switch at a strip shopping center. None of these four
18 locations had any collocation in them nor likely ever will. These buildings and
19 leases are hardly comparable with the larger towns and the value of property in
20 Florida. It should be noted that Sprint does not lease space in Florida for central
21 office equipment buildings (see Sprint's Response to Staff's Interrogatory
22 Number 25).

23 **Q. On page 24 of his Rebuttal Testimony, Dr. Gabel expresses concern over the**
24 **statistical validity of Sprint's sample of five sets of floor plans for its central**

1 **office buildings in evaluating its floor space gross up factor. Why did Sprint**
2 **use five?**

3 A. As covered in our Response to Staff's POD Number 13, Sprint's selection of five
4 central offices was based on the need to work with a manageable number of
5 offices to analyze given the labor intensive nature of this study.

6 **Q. Has Sprint examined additional floor space plans since the filing of its study**
7 **in February?**

8 A. Yes. Sprint has added a random selection of 14 additional central office buildings
9 containing collocation for a total of 19. As shown on Exhibit JRD-7, this is now
10 a statistically valid sample of Sprint's central offices.

11 **Q. On page 27 of his Rebuttal Testimony, Dr. Gabel's footnote number 27**
12 **asserts that "49 of Sprint's 134 COs (roughly 37%) are at or near capacity".**
13 **Is this assertion true?**

14 A. No. Dr. Gabel referenced Sprint's web site containing information on full site
15 locations. Dr. Gabel assumed that all 49 sites listed are central offices, while at
16 the time of the study only one of these sites was a central office with the
17 remaining 48 closed sites were digital line carrier systems.

18 **Q. Is this one closed office included in your random sample of central office**
19 **buildings?**

20 A. Yes.

21 **Q. What incorrect assumptions has Dr. Gabel made about Sprint allocation of**
22 **egress space its floor space factor?**

23 A. Dr. Gabel failed to recognize that Sprint's inclusion of egress (labeled "E" as
24 shown in column "h" of Exhibit JRD-7) only includes the egress contained within
25 the equipment transmission room. The egress used by Sprint in its calculation of

1 the floor space rate consists of the aisles on either end of the rows of equipment
2 bays along with space which allows access to caged collocation. Without this
3 aisle space, the collocation is unusable because a technician would not place or
4 access equipment. It would therefore be inappropriate to spread Sprint's egress
5 space to any other elements.

6 **Q. How did Sprint determine shared and growth space for its floor space rate**
7 **calculation?**

8 A. For shared space (labeled "S" in column "f" of Exhibit JRD-7), Sprint excluded
9 space (stairways, halls, equipment staging areas, bathrooms, and break rooms)
10 that would not be used by the ALEC. For growth space (labeled "G" in column
11 "g" of Exhibit JRD-7), Sprint only counted space that is available for both Sprint
12 and the ALECs to occupy as equipment space. Sprint bears the full cost of all this
13 space; therefore, ALECs should bear a fair share of this cost. This can only be
14 accomplished by allocating shared, growth and egress space to only transmission
15 space.

16 **Q. In footnote number 26 on page 27 of his Rebuttal Testimony, witness Gabel**
17 **claims that Sprint included "office space" as shared space in it's Winter Park**
18 **Central Office Building. Is this true?**

19 A. No. The space Dr. Gabel is referring to is obviously a hallway which leads to a
20 transmission space shared by Sprint and the ALECs. After consulting with
21 building engineering, this space was appropriately and clearly relabeled "HALL"
22 on the drawing and used as shared space in our analysis.

23 **Q. What is Sprint's space allocation for Air Conditioning?**

24

25

1 A. The space identified for Air Conditioning Equipment (column “k” of Exhibit
2 JRD-7), is for space containing the central office’s heating and cooling system
3 (HVAC).

4 **Q. In its original study, why did Sprint allocate all of its AC equipment space to**
5 **transmission space?**

6 A. According to Sprint’s facility engineers, more than half of the cooling capacity of
7 a central office building is needed to cool the equipment in the building as
8 opposed to the building itself if it were empty. Nonetheless in retrospect, some of
9 the AC equipment space allocated by Sprint to the transmission space could have
10 been allocated to office and power space (vaults are generally not cooled).
11 Sprint’s desire is to recover only its cost; therefore, Sprint has made adjustments
12 to reflect the sharing of AC space (labeled “A” in column “l” of Exhibit JRD-7),
13 to more than just transmission space in its recalculation of its floor space gross up
14 factor which is covered below.

15 **Q. How did Sprint allocate AC equipment space in its recalculation of the gross**
16 **up factor?**

17 A. As can be seen in columns “d”, “j”, and “l” of Exhibit JRD-9, Sprint allocated the
18 AC equipment space based on the square footage of all identified space in the
19 building excluding unconditioned spaced (e.g. cable vaults).

20 **Q. What floor space gross up factor is supported by Sprint’s additional data**
21 **coupled with the adjustment in how AC space is allocated?**

22 A. As can be seen from the results of Exhibit JRD-7, Sprint’s revised gross up factor
23 is 49.2 %. This higher factor, when combined with the small reduction in Sprint’s
24 security additive discussed previously, results in a revised floor space rate of

1 \$7.87 per square foot per month (see Revised Exhibit JRD-2). Sprint's floor
2 space rate in its original filing on February 4th, 2003 was \$9.65.

3

4 **Gabel Mischaracterizes Sprint's Presentation of its Forward Looking Costs**

5

6 **Q. On page 32 of his Rebuttal Testimony, as part of his comments on the**
7 **reliance of SME inputs, Dr. Gabel comments that the "incumbent LECs have**
8 **greater access to the cost information necessary to calculate the incremental**
9 **cost of unbundled elements in the network" and "incumbent LECs must**
10 **prove to the state commission the nature and magnitude of any forward-**
11 **looking cost that it seeks to recover in the prices of interconnection and**
12 **unbundled network elements". Has Sprint presented its forward looking**
13 **cost in this proceeding?**

14 **A. Yes. As covered in Sprint's Response to Staff's Interrogatory Number 15, 90%**
15 **of the first year collocation costs are supported by either actual cost analysis or**
16 **forward looking vendor quotes while 99% of the ongoing monthly recurring**
17 **charges are supported by actual cost analysis or forward looking vendor quotes.**

18 **Q. What comments has Dr. Gabel made concerning Sprint's actual cost**
19 **derivations through work order analysis and vendor quotes?**

20 **A. On page 37, Dr. Gabel acknowledges that Sprint has substantially supported its**
21 **rates through actual cost (through work order analysis) or vendor quotes;**
22 **however, he still expresses a preference towards Verizon's lower work times. In**
23 **fact, throughout his "analysis" Dr. Gabel simply picks the lowest number without**
24 **regard as to whether or not the low number is accurate. This is the case for DSO**
25 **cross connect cable pulls (page 50 of Gabel's Rebuttal). Dr. Gabel prefers**

1 Verizon's lower work time for cable pulls and terminations which are supported
2 by SME inputs to Sprint's work time for cable installations which are based on
3 work order analysis. Even though he otherwise is critical of SME inputs, he does
4 not introduce the possibility that Verizon's SME based work times are
5 understated. Another possibility is that Verizon's SME based work times
6 represent a best case scenario involving comparatively easy installations of a
7 relatively large number of DSOs installed per job. Of the 75 work orders
8 examined by Sprint in determining the actual work times for cross connects, only
9 6 involved installations of more than 2,000 DSOs while 4 of 5 collocations
10 included by Verizon in its Response to Staff's Interrogatory to Verizon No. 1,
11 involved installations of more than 2,000 DSOs. Sprint's work times for cross
12 connect cable installations reflect the quantities typically installed by Sprint as
13 well as the realities of the difficulties of doing this type of work.

14 **Q. Where else did Dr. Gabel simply pick the lowest work time input without**
15 **regard to its accuracy?**

16 A. Although Sprint and BellSouth's collocation application fees are similar (\$2,758
17 and \$2,785 respectively), on page 39 of his Rebuttal Testimony, Dr. Gabel
18 recommends that both Sprint and BellSouth use Verizon's work times for its
19 Application Fee. In this situation, Verizon is clearly the outlier, but Dr. Gabel
20 disregards the possibility that Verizon has omitted some costs they are entitled to
21 or is recovering some of their application related costs in some other way. He
22 simply picks the Verizon rate because it is the lowest number.

23
24

Sprint - Proposed Rates					
Sprint Rate Elements	Qty	NRC Rates	MRC Rates	Total NRCs	Total MRCs
Application Fee	1	2,758.17	0.00	2,758.17	0.00
New Collo - Admin Transm. Engr. & Project Mgt Fee	1	5,700.28	0.00	5,700.28	0.00
Subtotal Adm/Trans/Proj. Mot. Fee				5,700.28	0.00
Floor Space (per square foot)	21	0.00	7.87	0.00	165.27
Subtotal Floor Space				0.00	165.27
AC Outlet Installation (per outlet 20 amps)	2	1,106.54	0.00	2,213.08	0.00
DS1 Cross Connect (per 28 DS1s)	4	0.00	41.47	0.00	165.98
Subtotal DS1				0.00	165.98
DS3 Cross Connect (per 12 DS3)	1	0.00	207.65	0.00	207.65
Subtotal DS3				0.00	207.65
Optical Cross Connect (per 4 Fibers)	1	0	15.98	0.00	15.98
Subtotal Fiber				0.00	15.98
Power Costs - Per Load Ampere Ordered	50	0.00	16.14	0.00	807.00
Subtotal Amos Ordered				0.00	807.00
Power Costs - Connection to Power Plant 35-60 Amps	1	2,707.34	35.51	2,707.34	36.51
Subtotal DC Power Connection				2,707.34	36.51
Internal Cable - 38 Fiber*	2	1,074.66	40.18	2,149.38	80.36
Internal Cable Space - Per 48 Fiber Cable*	2	0.00	31.94	0.00	63.88
Subtotal Internal Cable				2,149.38	144.24
Security Card - Per Card	1			15.00	
Totals				\$ 15,643.25	\$ 1,542.73

Verizon - Proposed Rates					
Verizon Rate Elements and number (BKE-3)	Qty	NRC Rates	MRC Rates	Total NRCs	Total MRCs
Engineering Major Adjustm. Caged/Cageless	1	1,380.25	\$ -	1,380.25	\$0.00
12 Facility Pull - Engineering	1	\$ 83.61	\$ -	\$ 83.61	\$ -
27 DC Power - Engineering	1	\$ 83.61	\$ -	\$ 83.61	\$ -
Subtotal Adm/Trans/Proj. Mot. Fee				\$ 167.22	\$0.00
36 Caged Floor Space (per square foot)	21	\$ -	\$ 3.83	\$ -	\$80.43
34 Building Modification	1	\$ 237.96	\$ -	\$ 237.96	\$237.96
35 Environmental Containment	50	\$ 3.21	\$ -	\$ 160.50	\$160.50
10 Cage Grounding Bar	1	1423.85	\$ -	1,423.85	\$ -
11 Overhead Superstructure/Cable Support	1	\$1,247.53	\$ -	\$ 1,247.53	\$ -
Subtotal Floor Space				\$ 2,671.18	\$478.89
18 DS1 Cable Termination (connected)	4	\$ 1.15	\$ -	\$ 4.60	\$ -
48 DS1 Facility Termination	4	\$ -	\$ 10.47	\$ -	\$41.88
44 Cable Rack Shared Space DS1	4	\$ 0.18	\$ -	\$ 0.72	\$0.72
101 Facility Cable (Connected) DS1	4	\$ 121.70	\$ -	\$ 486.80	\$ -
13 Facility Pull Labor (Metallic)	4	\$ 128.80	\$ -	\$ 515.20	\$ -
Subtotal DS1				\$ 1,006.60	\$42.60
17 DS3 Coaxial Cable Termination (Preconnected)	24	\$ 1.15	\$ -	\$ 27.60	\$ -
49 DS3 Facility Termination	24	\$ -	\$ 25.11	\$ -	\$602.64
44 Cable Rack Shared Space	24	\$ 0.18	\$ -	\$ 4.32	\$4.32
102 Facility Cable - DS3 Coaxial Cable	24	\$ 36.12	\$ -	\$ 866.88	\$ -
13 Facility Pull Labor (Metallic)	24	\$ 128.80	\$ -	\$ 3,091.20	\$ -
Subtotal DS3				\$ 3,986.68	\$606.96
120 Facility Termination - Fiber Optic Patchcord	1	\$ 0.47	\$ -	\$ 0.47	\$0.47
111 Fiber Optic Patchcord - 24 Fiber (Connected)	1	\$ 775.15	\$ -	\$ 775.15	\$ -
14 Fiber Optic Patchcord Pull Labor	1	\$ 212.75	\$ -	\$ 212.75	\$ -
20 Fiber Optic Patchcord Termination	1	\$ 1.15	\$ -	\$ 1.15	\$ -
121 Cable Duct Space - Fiber Optic Patchcord	1	\$ 0.14	\$ -	\$ 0.14	\$0.14
45 Cable Rack Shared Space - Fiber Interduct	73	\$ 0.01	\$ -	\$ 0.73	\$0.73
Subtotal Fiber				\$ 989.26	\$1.04
45 DC Power (per 1 amp)	50	\$ -	\$ 25.45	\$ -	\$1,272.50
Subtotal Amos Ordered				\$ -	\$1,272.50
104 Power Cable - Wire Power 100	4	32.93	\$ -	\$ 131.32	\$ -
107 Power Cable - Wire Power 400	4	\$ 62.98	\$ -	\$ 251.92	\$ -
29 DC Power - Ground Wire	1	\$ 9.38	\$ -	\$ 9.38	\$ -
28 DC Power - Cable Pull/Termination	8	\$ 838.79	\$ -	\$ 6,710.32	\$ -
Subtotal DC Power Connection				\$ 7,102.94	\$0.00
1 Fiber Cable Pull - Engineering	1	\$1,371.12	\$ -	\$ 1,371.12	\$ -
22 Fiber Cable Pull - Place Interduct	192	\$ 0.73	\$ -	\$ 140.16	\$ -
23 Fiber Cable Pull - Labor (per linear foot)	840	\$ 0.49	\$ -	\$ 313.60	\$ -
24 Fiber Cable Pull - Cable Fin Retraction	2	\$ 45.98	\$ -	\$ 91.96	\$ -
25 Fiber Cable Splice - Engineering	1	\$ 68.56	\$ -	\$ 68.56	\$ -
25 Fiber Cable Splice (per fiber strand)	95	\$ 41.03	\$ -	\$ 3,938.88	\$ -
Subtotal Internal Cable				\$ 4,563.16	\$ -
3 Access Card Administration	1	\$ 31.64	\$ -	\$ 31.64	\$ -
Totals				\$ 21,887.72	\$2,402.00

* Verizon did not include Internal Cable elements

	NRC	MRC
Sprint - FI	\$ 15,543.35	\$1,542.73
Verizon - FI	\$ 21,827.72	\$2,402.00
BellSouth - FI	\$ 19,935.57	\$1,006.93
NPV 9.98%		
Year 1	\$ 33,205.72	\$ 48,393.81
Year 2	\$ 16,077.25	\$ 25,031.94
Year 3	\$ 14,634.31	\$ 22,795.31
Year 4	\$ 13,320.87	\$ 20,740.31
Total	\$ 77,238.14	\$ 117,945.37

	1	2	3	4
Year by Year Sprint	\$ 33,206	\$ 15,077	\$ 14,634	\$ 13,321
Cumulative	\$ 33,206	\$ 48,283	\$ 63,917	\$ 77,238
Year by Year Verizon	\$ 49,388	\$ 25,032	\$ 22,785	\$ 20,740
Cumulative	\$ 49,388	\$ 74,420	\$ 97,205	\$ 117,945
Year by Year BellSouth	\$ 31,484	\$ 10,494	\$ 9,552	\$ 8,694
Cumulative	\$ 31,484	\$ 41,957	\$ 51,509	\$ 60,204

BellSouth - Proposed Rates					
BellSouth Rate Elements and number (WBS-2)	Qty	NRC Rates	MRC Rates	Total NRCs	Total MRCs
H 1 Application Cost - Initial	1	2,758.00	0.00	2,758.00	0.00
New Collo - Admin Transm. Engr. & Project Mgt Fee - See Note (2)	1	5,700.28	0.00	5,700.28	0.00
Subtotal Adm/Trans/Proj. Mot. Fee				5,700.28	0.00
H 1 8 Floor Space (per square foot)	21	0.00	5.28	0.00	110.98
H 1 41 Space Preparation - CO Modifica per sq ft - Cageless	21	0.00	2.38	0.00	49.98
H 1 42 Space Preparation - Common Systems Modification per Sq Ft - Cageless	21	0.00	2.50	0.00	52.50
Subtotal Floor Space				0.00	213.36
H 1 11 DS1 Cross Connect Panel & Installation (per DS1)	112	0.00	0.3786	0.00	42.40
DS1 Cross Connect ALEC Maintenance (per 28 DS1s) - See Note (1)	4	0.00	11.96	0.00	47.84
DS1 Cross Connect ALEC Provisioned Materials (per 28 DS1s) - See Note (1)	4	377.63	0.00	1,511.32	0.00
DS1 Cross Connect ALEC Provisioned Installation Labor (per 28 DS1s) - See Note (1)	4	-470.26	0.00	1,681.04	0.00
Subtotal DS1				3,392.36	90.24
H 1 12 DS3 Cross Connect Panel & Installation (per DS3)	12	0.00	4.16	0.00	49.92
DS3 Cross Connect ALEC Provisioned Maintenance (per 12 DS3)	1	0.00	59.93	0.00	59.93
DS3 Cross Connect ALEC Provisioned Materials (per 12 DS3s) - See Note (1)	1	1,699.96	0.00	1,699.66	0.00
DS3 Cross Connect ALEC Provisioned Installation Labor (per 12 DS3s) - See Note (1)	1	407.36	0.00	407.36	0.00
Subtotal DS3				2,107.02	109.85
H 1 32 Optical Cross-Connect (per 4 Fibers)	1	0.00	3.34	0.00	3.34
Optical Cross-Connect ALEC Maintenance (per 4 Fibers)	1	0.00	4.61	0.00	4.61
Optical Cross-Connect ALEC Provisioned Materials (per 4 Fibers) - See Note (1)	1	159.27	0.00	159.27	0.00
Optical Cross-Connect ALEC Provisioned Installation Labor (per 4 Fibers) - See Note (1)	1	99.36	0.00	99.36	0.00
Subtotal Fiber				258.63	7.96
H 1 71 Power Costs - Per Used Ampere Ordered #	50	0.00	10.87	0.00	543.50
Subtotal Amos Ordered				0.00	543.50
Power Costs - ALEC Provisioned Connection to Power Plant 35-60 Amps Maintenance - See Note (1)	1	0.00	31.65	0.00	31.65
Power Costs - ALEC Provisioned Power Cable Material 35 - 60 amp - See Note (1)	1	1,713.77	0.00	1,713.77	0.00
Power Costs - ALEC Provisioned Power Cable Installation Labor 35 - 60 amp - See Note (1)	1	993.96	0.00	993.96	0.00
Subtotal DC Power Connection				2,707.34	31.65
H 1 5 Fiber Entrance Cable Installation per Cable	2	1,473.00	0.00	2,946.00	0.00
H 1 7 Cable Support Structure per Fiber Entrance Cable	2	0.00	5.19	0.00	10.38
Subtotal Internal Cable				2,946.00	10.38
H 1 38 Security Access System - New Card Activation per Card	1	38.95	\$ -	38.95	\$ -
Totals				\$ 19,935.57	\$ 1,006.93

BellSouth did not include Cross Connect Cable or DC Power Connections

Note (1) Sprint's cost used for ALEC provisioned cost.
Note (2) Sprint Engineering and Project Management Fee used to represent ALEC incurred cost for Engineering and Project Management. BellSouth's elements of Cable Records and Firm Order Processing (H 1 45) omitted to avoid cost duplication.

DOCUMENT NUMBER: 09288
 DATE: SEP 26 2003
 FPSC-CONMISSION CLIENT

Sprint - Proposed Rates					
Sprint Rate Elements	Qty	NRC Rates	MRC Rates	Total NRCs	Total MRCs
Application Fee	1	2,758.17	0.00	2,758.17	0.00
New Collo - Admin, Transm. Engr & Project Mgt Fee	1	5,700.28	0.00	5,700.28	0.00
Subtotal Adm/Trans/Proj. Mat. Fee				5,700.28	0.00
Floor Space (per square foot)	72	0.00	7.87	0.00	566.64
Subtotal Floor Space				0.00	566.64
AC Outlet Installation (per outlet 20 amps)	2	1106.54	0.00	2,213.08	0.00
DSO Switchboard Cable per 100 Par	6	0.00	29.72	0.00	178.32
Subtotal DSO				0.00	178.32
DS1 Cross Connect (per 28 DS1s)	15	0.00	41.47	0.00	622.05
Subtotal DS1				0.00	622.05
DS3 Cross Connect (per 12 DS3)	2	0.00	207.85	0.00	415.70
Subtotal DS3				0.00	415.70
Power Costs - Per Load Ampere Ordered	210	0.00	16.14	0.00	3,389.40
Subtotal Amps Ordered				0.00	3,389.40
Power Costs - Connection to Power Plant up to 30 Amps	1	1,650.12	23.05	1,650.12	23.05
Power Costs - Connection to Power Plant 35-60 Amps	3	2,707.34	36.51	8,122.01	109.53
Subtotal DC Power Connection				9,772.13	132.58
Security Card - Per Card	1	15.00		15.00	
Totals		15.00		20,458.66	5,304.69

Verizon - Proposed Rates					
Verizon Rate Elements and number (BKE-3)	Qty	NRC Rates	MRC Rates	Total NRCs	Total MRCs
1. Engineering/Major Augment - Caged/Cageless	1	1,380.25	-	1,380.25	0.00
27 DC Power - Engineering	1	\$ 83.61		\$ 83.61	0.00
Subtotal Adm/Trans/Proj. Mat. Fee				83.61	0.00
36 Caged Floor Space (per square foot)	72	-	3.93	-	\$275.76
34 Building Modification	1	237.96	-	237.96	0.00
35 Environmental Conditioning	50	-	3.21	-	\$160.50
10 Cage Grounding Bar	1	1,423.65	-	1,423.65	0.00
11 Overhead Superstructure/Cable Support	1	1,247.53	-	1,247.53	0.00
Subtotal Floor Space				2,871.18	674.22
15 DSO Cable Termination (connected)	6	4.60	-	27.60	0.00
47 DSO Facility Termination	6	-	3.21	-	\$19.26
44 Cable Rack Shared Space- DSO	6	-	0.18	-	\$1.08
100 Facility Cable (Connected)- DSO	6	265.43	-	1,592.58	0.00
13 Facility Pull - Labor (Metallic)	6	128.80	-	772.80	0.00
Subtotal DSO				2,392.98	20.34
16 DS1 Cable Termination (connected)	15	1.15	-	17.25	0.00
46 DS1 Facility Termination	15	-	10.47	-	\$157.05
44 Cable Rack Shared Space- DS1	15	-	0.18	-	\$2.70
101 Facility Cable (Connected)- DS1	15	121.70	-	1,825.50	0.00
13 Facility Pull - Labor (Metallic)	15	128.80	-	1,932.00	0.00
Subtotal DS1				3,774.75	159.75
17 DS3 Coaxial Cable Termination (Preconnected)	48	1.15	-	55.20	0.00
49 DS3 Facility Termination	48	-	25.11	-	\$1,205.28
44 Cable Rack Shared Space	48	-	0.18	-	\$8.64
102 Facility Cable - DS3 Coaxial Cable	48	36.12	-	1,733.76	0.00
13 Facility Pull - Labor (Metallic)	48	128.80	-	6,182.40	0.00
Subtotal DS3				7,971.36	1,213.92
46 DC Power (per 1 amp)	210	-	25.45	-	\$5,344.50
Subtotal Amps Ordered				\$ -	\$5,344.50
104 Power Cable - Wire Power 1/0	4	32.83	-	131.32	0.00
107 Power Cable - Wire Power 4/0	12	62.98	-	755.76	0.00
29 DC Power - Ground Wire	1	9.38	-	9.38	0.00
28 DC Power - Cable Pull/Termination	16	838.79	-	13,420.64	0.00
Subtotal DC Power Connection				14,317.10	0.00
3 Access Card Administration	1	31.64	-	31.64	0.00
Totals		31.64		32,622.87	7,412.73

	NRC	MRC		
Sprint - FI	\$ 20,458.66	\$5,304.69		
Verizon - FI	\$ 32,522.87	\$7,412.73		
BellSouth	\$ 42,366.95	\$3,750.47		
NPV	9.85%			
Year	1	2	3	4
Year by Year - Sprint	\$ 81,191	\$ 55,282	\$ 50,320	\$ 45,804
Cumulative	\$ 81,191	\$ 136,473	\$ 186,793	\$ 232,597
Year by Year - Verizon	\$ 117,490	\$ 77,250	\$ 70,317	\$ 64,006
Cumulative	\$ 117,490	\$ 194,740	\$ 265,057	\$ 329,063
Year by Year - BellSouth	\$ 85,306	\$ 39,085	\$ 35,577	\$ 32,384
Cumulative	\$ 85,306	\$ 124,390	\$ 159,967	\$ 192,351

BellSouth - Proposed Rates					
BellSouth Rate Elements	Qty	NRC Rates	MRC Rates	Total NRCs	Total MRCs
H.1.1 Application Cost - Initial	1	2,785.00	0.00	2,785.00	0.00
New Collo - Admin, Transm. Engr & Project Mgt Fee	1	5,700.28	0.00	5,700.28	0.00
Subtotal Adm/Trans/Proj. Mat. Fee				5,700.28	0.00
H 1 6 Floor Space (per square foot)	72	0.00	5.28	0.00	380.16
H 1 41 Space Preparation - C/O Modific per sq ft - Cageless	72	0.00	2.38	0.00	171.36
H 1 42 Space Preparation - Common Systems Modification per Sq Ft - Cageless	72	0.00	2.50	0.00	180.00
H 1 45 Space Preparation - Firm Order Processing	1	287.36	0.00	287.36	0.00
Subtotal Floor Space				287.36	731.52
H 1 10 DSO 4-Wire Cross Connects	600	0.00	0.0208	0.00	12.48
DSO Cross Connect ALEC Provided Maintenance (per 100 DSO) See Note (1)	6	0.00	8.57	0.00	51.42
DSO Cross Connect ALEC Provisioned Materials (per 100 DSOs) See Note (1)	6	325.58	0.00	1,959.54	0.00
DSO Cross Connect ALEC Provisioned Installation Labor (per 100 DSOs) See Note (1)	6	814.72	0.00	4,888.32	0.00
Subtotal DSO				6,847.86	63.90
H 1 11 DS1 Cross Connect Panel & Installation (per DS1)	420	0.00	0.3786	0.00	159.01
DS1 Cross Connect ALEC Maintenance (per 28 DS1s) See Note (1)	15	0.00	11.96	0.00	179.40
DS1 Cross Connect ALEC Provisioned Materials (per 28 DS1s) See Note (1)	15	377.83	0.00	5,667.45	0.00
DS1 Cross Connect ALEC Provisioned Installation Labor (per 28 DS1s) See Note (1)	15	470.26	0.00	7,053.90	0.00
Subtotal DS1				12,721.35	338.41
H 1 12 DS3 Cross Connect Panel & Installation (per DS3)	24	0.00	4.16	0.00	99.84
DS3 Cross Connect ALEC provided Maintenance (per 12 DS3)	2	0.00	59.93	0.00	119.86
DS3 Cross Connect ALEC Provisioned Materials (per 12 DS3s) See Note (1)	2	1,699.66	0.00	3,399.32	0.00
DS3 Cross Connect ALEC Provisioned Installation Labor (per 12 DS3s) See Note (1)	2	407.36	0.00	814.72	0.00
Subtotal DS3				4,214.04	219.70
H 1 71 Power Costs - Per Used Ampere	210	0.00	10.87	0.00	2,282.70
Subtotal Amps Ordered				0.00	2,282.70
Power Costs - Connection to Power Plant ALEC Provided Maintenance up to 30 Amps See Note (1)	1	0.00	19.29	0.00	19.29
Power Costs - ALEC Provisioned Power Cable Material up to 30 Amps See Note (1)	1	775.78	0.00	775.78	0.00
Power Costs - ALEC Provisioned Power Cable Installation Labor up to 30 Amps See Note (1)	1	874.34	0.00	874.34	0.00
Power Costs - Connection to Power Plant ALEC Provided Maintenance 35-60 Amps See Note (1)	3	0.00	31.65	0.00	94.95
Power Costs - ALEC Provisioned Power Cable Material 35 - 60 amp See Note (1)	3	1713.77	0.00	5,141.31	0.00
Power Costs - ALEC Provisioned Power Cable Installation Labor 35 - 60 amp See Note (1)	3	993.56	0.00	2,980.68	0.00
Subtotal DC Power Connection				9,772.11	114.24
H 1 38 Security Access System - New Card Activation, per Card	1	38.95	-	38.95	-
Totals		38.95		42,366.95	3,750.47

BellSouth did not include Cross Connect Cable or DC Power Connections

Note (1): Sprint's cost used for ALEC provisioned cost
 Note (2): Sprint Engineering and Project Management Fee used to represent ALEC incurred cost for Engineering and Project Management. Bell South's elements of Cable Records and Firm Order Processing (H 1 45) omitted to avoid cost duplication

NPV Sprint

NPV Verizon

NPV BellSouth

Collo. 1

\$ 77,238.14

\$ 117,945.37

\$ 60,203.56

Collo. 2

\$232,597.08

\$329,063.34

\$192,351.06

Density and Economies of Scale Statistics

Docket No. 981834-TP 990321-TP
 Davis Exhibit ____ (JRD-4)
 September 26, 2003
 1 of 1

Access Line Comparison - Sprint vs. BellSouth vs. Verizon

Line No.	Item	Sprint	BellSouth	Verizon
1	Total System Access Lines	7,953,455	22,300,335	58,028,209
2	Compared to Sprint		2.80	7.30
3	Total Switched Access Lines - Florida	2,132,474	5,953,460	2,299,682
4	Compared to Sprint		2.79	1.08
5	Total Plant in Service - Florida	4,803,328,000	#####	5,322,217,000
6	Compared to Sprint		3.03	1.11

Sources ARMIS 2002 Filing except Line 1 for Sprint which is from an internal company report, Station Data

Comparison of Offices By Size - Sprint vs. BellSouth vs. Verizon

Line No.	Classification	Sprint Offices	Sprint % of total	BellSouth Offices	BellSouth % of total	Verizon Offices	Verizon % of total
7	Under 1000 lines	9	6.77%	4	2.07%	2	2.25%
8	1000-4999 lines	33	24.81%	34	17.62%	11	12.36%
9	5000-9999 lines	19	14.29%	16	8.29%	9	10.11%
10	10000-19999 lines	28	21.05%	30	15.54%	16	17.98%
11	20000-29999 lines	15	11.28%	11	5.70%	9	10.11%
12	30000-39999 lines	13	9.77%	10	5.18%	11	12.36%
13	40000-49999 lines	7	5.26%	24	12.44%	6	6.74%
14	50000-59999 lines	2	1.50%	10	5.18%	9	10.11%
15	60000-69999 lines	3	2.26%	19	9.84%	11	12.36%
16	70000-79999 lines	4	3.01%	9	4.66%	5	5.62%
17	80000-99999 lines			10	5.18%		
19	100000-119999 lines			10	5.18%		
21	120000 and above			6	3.11%		
23	Totals	133	100.00%	193	100.00%	89	100.00%

Source: Most recent version of FCC's HCPM model used for Federal USF dated 12/18/01 (www.fcc.gov/wcb/tapd/hcpm/welcome.html)

Conclusions:

Sprint is by far the smallest of the three companies. BellSouth and Verizon are significantly larger, and therefore command better purchasing power and greater economies of scale than Sprint.

Sprint - Florida, Inc.
Amperage Utilization
Manual CLEC Power Readings

Staff POD 62-C-3

ALEC	DC Power Readings						Total Amps Used	Fused Amps	Load Amps *	% Utilization
	Day 1			Day 2						
	9:00	1:00	3:30	9:00	1:00	3:30				
ALEC # 1 - Sprint Central Office # 1 - 2 Bays										
Bay # 1										
Feed A	4.7	5.3	6.0	4.9	5.3	-	5.24			
Feed B	4.7	5.2	6.0	4.9	5.3	-	5.22			
Bay # 1 Total							10.46			
Bay # 2										
Feed A	1.8	3.3	6.4	4.9	5.5	-	4.38			
Feed B	3.8	3.4	6.2	5.3	6.8	-	5.10			
Bay # 2 Total							9.48			
Total Amps - ALEC # 1							19.94	135	108	18.5%
ALEC # 2 - Sprint Central Office # 2 - 1 Bay										
Feed A	3.8	4.1	4.1	3.1	3.9	-	3.80			
Feed B	5.5	5.1	5.2	3.8	3.8	-	4.68			
Total Amps - ALEC # 2							8.48	40	32	26.5%
ALEC # 3 - Sprint Central Office # 2 - 2 Bays										
Bay # 1										
Feed A	-	0.3	0.3	0.2	0.2	0.2	0.24			
Feed B	0.9	1.1	1.1	0.7	1.2	1.2	1.03			
Bay # 1 Total							1.27			
Bay # 2										
Feed A	5.9	5.6	5.6	6.0	5.6	-	5.74			
Feed B	5.6	5.3	5.4	5.7	5.7	-	5.54			
Bay # 2 Total							11.28			
Total Amps - ALEC # 3							12.55	200	160	7.8%
Total Amps							40.97	375	300	
Weighted Average Percent Utilization										13.7%

* Sprint used 1.25 factor to convert from Load Amps to Fused Amps (factor varies from 1.25 to 1.33)

Location	Cost of Power Addition	Completion Date	ALEC Name	Reason for Leaving	Equivalent Load Amps
Altamonte Springs	\$410,018	9/1/01		Abandon	96A
				Abandon	32A
				Abandon	96A
				Decommission	32A
				Decommission	64A
				Decommission	80A
				Abandon	96A
				Abandon	64A
Apopka	\$161,842	10/16/00		Abandon	96A
				Decommission	64A
				Abandon	152A
				Decommission	80A
				Decommission	32A
Kissimmee	\$1,282,885	12/1/00		Abandon	96A
				Decommission	32A
				Decommission	48A
				Decommission	32A
				Abandon	64A
Winter Park	\$753,376	2/11/00		Abandon	96A
	\$981,660	3/31/01		Abandon	144A
				Abandon	96A
				Decommission	32A
				Decommission	32A
			Decommission	160A	

Location	Building	Total Bldg. Investment	Total Bldg. Sq. Ft.	Bldg. Investment/Sq. Ft.
Ft. Myers Beach	FLFMBA	\$411,878	3,528	\$116.75
Apopka	FLAPKI	\$914,619	7,813	\$117.06
Arcadia	FLARCA	\$934,522	5,057	\$184.80
Bonifay	FLBONA	\$1,041,893	4,641	\$224.50
Cape Coral	FLCCLB	\$2,151,194	10,270	\$209.46
Destin	FLDESC	\$1,177,779	4,213	\$279.56
North Cape Coral	FLCCLC	\$773,111	5,209	\$148.42
Winter Park	FLWNTB	\$11,780,951	41,489	\$283.95
Orange City	FLORCA	\$1,351,539	7,474	\$180.83
Lehigh Acres	FLLEHA	\$1,119,790	4,179	\$267.96
Maitland	FLMTDG	\$2,645,014	8,384	\$315.48
North Naples	FLNAPB	\$930,443	7,194	\$129.34
Naples Southeast	FLNAPD	\$1,628,614	7,572	\$215.08
Tallahassee - Thomasville	FLTLHT	\$911,626	5,488	\$166.11
TOTALS		\$27,772,973	122,511	\$226.70

Security Installation Bids in Sprint-Florida, Inc. Central Offices

Central Office	Address	City	CLLI	CO Sq. Ft.	Bid Amount
Altamonte Springs Co	450 Sanford Ave.	Altamonte Springs	ALSPFLXA	13,402	\$7,267
Apopka Co.	200 2nd St.	Apopka	APPKFLXA	4,948	\$18,700
Bonita Springs Co.	28160 Beaumont Rd.	Bonita Springs	BNSPFL	6,738	\$16,043
Cape Coral Co.	4001 Palm Tree Blvd	Cape Coral	CPCRFLXAH01	9,785	\$16,989
Casselberry Co	1510 Lake Drive	Casselberry	CSLBFLXA	5,077	\$11,644
Cypress Lake Co.	7461 Winkler Rd	Cypress Lake	CYLKFLXA	8,591	\$17,988
Destin Co.	575 Main St. - 32541	Destin	DESTFLXAH01	3,225	\$12,337
Eglin Airforce Base	BLDG 75 Eglin AFB	Ft Walton	EGLINFLAT	2,675	\$9,452
Ft. Walton Beach 862	630 Denton Blvd	Ft Walton Beach	FTWBFLXB	6,146	\$15,256
Ft. Walton Beach Co.	212 Hollywood Blvd.	Ft. Walton Beach	FTWBFLXA	12,468	\$24,100
Golden Gate Co.	4661 Sunset Blvd	Golden Gate	GLGCFLXA	3,962	\$17,589
Golden Rod Co.	7601 Citrus Ave	Golden Rod	GLRDFLXA	10,739	\$28,593
Kissimmee Co.	418 E. Broadway	Kissimmee	KSSMFLXA	9,430	\$36,866
Lake Brantley Co.	916 St. Rd. 434	Altamonte Springs	LKBRFLXA	8,565	\$14,904
Leesburg Co.	425 N. 3rd St.	Leesburg	LSBGFLXA	11,470	\$71,131
Marco Island Co.	401 Bald Eagle Dr.	Marco Island	MOISFLXAH04	3,327	\$16,139
N. Cape Coral Co.	906 Country Club Rd.	N. Cape Coral	CPCRFLXB	5,332	\$17,847
Naples Mooring Co.	990 N. 26th Ave.	Naples	NPLSFLXD	9,468	\$17,535
Ocala Co.	319 SE Broadway	Ocala	OCALFLXA	1,323	\$18,347
Port Charlotte Co.	3391 S Tamiami Dr	Port Charlotte	PTCTFLXA	13,285	\$14,760
Punta Gorda Co.	113 W. Olympia Ave	Punta Gorda	PNGRFLXA	10,643	\$20,511
Sebring Co.	130 S. Ridgewood Dr.	Sebring	SBNGFLXA	5,573	\$14,760
Shady Road Co.	2463 SW College Rd	Ocala	OCALFLXBH02	3,807	\$15,775
South Ft. Myers	3825 Cleveland Blvd.	Ft. Myers	FTMYFLXC	9,538	\$17,099
Tallahassee	3968 Perkins Road	Tallahassee	TLHSFLXHH04	3,688	\$14,398
Tallahassee 222 Co	132 N. Calhoun St.	Tallahassee	TLHSFLXA	28,920	\$42,727
Tallahassee 385 Co	124 Willis Rd.	Tallahassee	TLHSFLXB	10,380	\$21,768
Tallahassee 877 Co.	1337 Blairstone Dr.	Tallahassee	TLHSFLXD	11,378	\$31,947
Tallahassee 893 Co.	5000 Thomasville Rd.	Tallahassee	TLHSFLXF	3,668	\$14,396
Tallahassee-Mabry Ofc	706 Mabry St.	Tallahassee	TLHSFLXC	6,918	\$26,487
W. Kissimmee Co.	3080 Vineland Rd	Kissimmee	KSSMFLXB	3,910	\$11,226
Winter Garden Co.	33 N. Main St	Winter Garden	WNGRFLXA	12,528	\$65,875
Winter Park Local Co.	151 New York Ave	Winter Park	WNPKFLXA	12,373	\$16,935
Totals				273,280	\$717,389
Security Investment Per Square Foot					\$2.63

**FLOOR SPACE FACTOR
 ASSIGNABLE TRANSMISSION SPACE AS A PERCENT OF
 SHARED, AIR, GROWTH, EGRESS & TRANSMISSION SPACE**

Line No.	Office	a	b	c	d	e	(S)	(G)	(E)	(X)	J	k	(A)	(SAGEX)	n
		(Excluded)	(Excluded)	(Excluded)	= b+c (Excluded)		f	g	h=0.2 * e	i	= f+g+h+i		l =k*i/(j+d)	m = j+l	=i/m
		Vault	Office	Power	Office & Power	Total Transmission	Shared	Growth	Total Trans Space	Assignable Transmission Space	Total Shared, Egress & Transmission	Total Space For Air Cond Equip	Air Cond Space For Shared, Growth, Egress & Transmission	Total Shared, Air Cond, Egress & Transmission	Percent Assignable Trans Space (X) to SAGEX
1	Calhoun	1,248	50,691	11,658	62,349	21,988	9,131	6,955	4,398	17,590	38,074	5,971	2,264	40,338	43.6%
2	Winter Park	1,888	19,859	3,774	23,633	6,958	4,730	1,778	1,392	5,566	13,466	2,502	908	14,374	38.7%
3	Orange City	693	1,939	404	2,343	2,732	628	489	546	2,186	3,849	589	366	4,215	51.9%
4	Ft Myers Beach		150	300	450	1,454	299	1,145	291	1,163	2,898	180	156	3,054	38.1%
5	Forest			228	228	1,279	117	167	256	1,023	1,563	102	89	1,652	61.9%
6	Apopka		675	1,223	1,898	3,391	224	1,822	678	2,713	5,437	478	354	5,791	46.8%
7	Arcadia	466	369	564	933	2,605	507	546	521	2,084	3,658			3,658	57.0%
8	Bonifay		2,521	670	3,191	769	436	245	154	615	1,450			1,450	42.4%
9	North Cape Coral	127		664	664	3,173	683	562	635	2,538	4,418			4,418	57.5%
10	Cypress Lake	673	1,334	966	2,300	6,865	341	441	1,373	5,492	7,647			7,647	71.8%
11	Destin		239	1,206	1,445	1,997	401	167	399	1,598	2,565	203	130	2,695	59.3%
12	Lehigh Acres		274	267	541	2,750	375	323	550	2,200	3,448	190	164	3,612	60.9%
13	Marco Island		785	349	1,134	1,691	278	1,045	338	1,353	3,014	42	31	3,045	44.4%
14	Maitland		96	622	720	5,533	94	2,037	1,107	4,426	7,664			7,664	57.8%
15	North Naples	844	535	466	1,001	4,037	175	726	807	3,230	4,938	411	342	5,280	61.2%
16	Naples Southeast		614	530	1,144	3,631	313	2,484	726	2,905	6,428			6,428	45.2%
17	Tallahassee Willis	483	3,635	1,503	5,138	4,715	338	608	943	3,772	5,661	426	223	5,884	64.1%
18	Tallahassee Thomasville	517	236	1,111	1,347	2,241	968	98	448	1,793	3,307	317	225	3,532	50.8%
19	Cape Coral	398	796	1,280	2,076	3,658	799	2,542	732	2,926	6,999	797	615	7,614	38.4%
20	Total	7,337	84,750	27,785	112,535	81,467	20,837	24,180	16,293	65,174	126,464	12,208	5,867	132,351	49.2%

Notes Vault, power & office space are excluded from the factor calculation, except that a portion of air conditioning rooms is allocated to office & power space
 Vault & power room floor space is recovered in collo elements other than the floor space element
 General office space is not relevant to the calculation of the central office floor space factor

Confidence Level	95%
Std. Deviation	9.97%
Error (e)	4.50%
Z-value	1.96
Sample Size	18.85
Sample Required	19.00

From studying this sample, we can be 95% certain the actual average (percent assignable space) is within 4.5% of our sample average given the data set consists of 19 observations.

Florida Ground Bar Cost Summary

Ground Bar Type	#777 (18"X4")	#535 (12"X4")	#2/0 (12"X2")
Custom Built Ground Bar Assembly	\$219.60	\$195.20	\$185.20
Insulated Conductor Cable - 100 ft.	\$2,006.96	\$1,668.34	\$1,075.71
Labor to Bond Ground Bar *	\$2,300.00	\$2,300.00	\$2,300.00
Total	\$4,526.56	\$4,163.54	\$3,560.91

* Cost excludes Sprint Engineering

Exhibit JRD-10

p. 2

QUOTE

DATE: ~~June 25, 2003~~

Vendor Name removed

LAKE PLACID, FL 33862-1689

To:
 SPRINT-FLORIDA, INCORPORATED
 P.O. BOX 165000
 ALTAMONTE SPRINGS, FL 32716-5000
 MAIL CODE: FLAPKA0241

QUOTE #: 0396-SF
 SITE NAME:
 WORK ACTIVITY #:
 JOB DESCRIPTION: CUSTOM BUILT GROUND BAR ASSEMBLY.

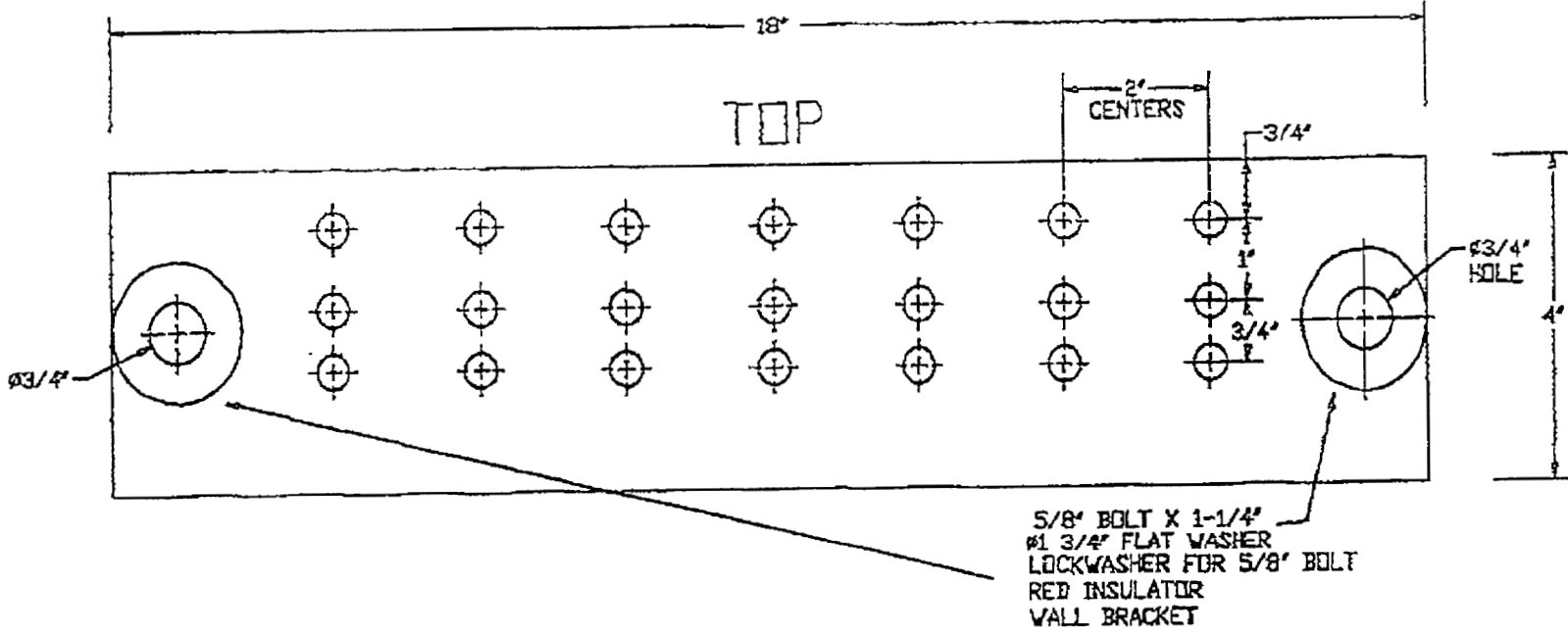
ATTN: GEORGE NILSEN

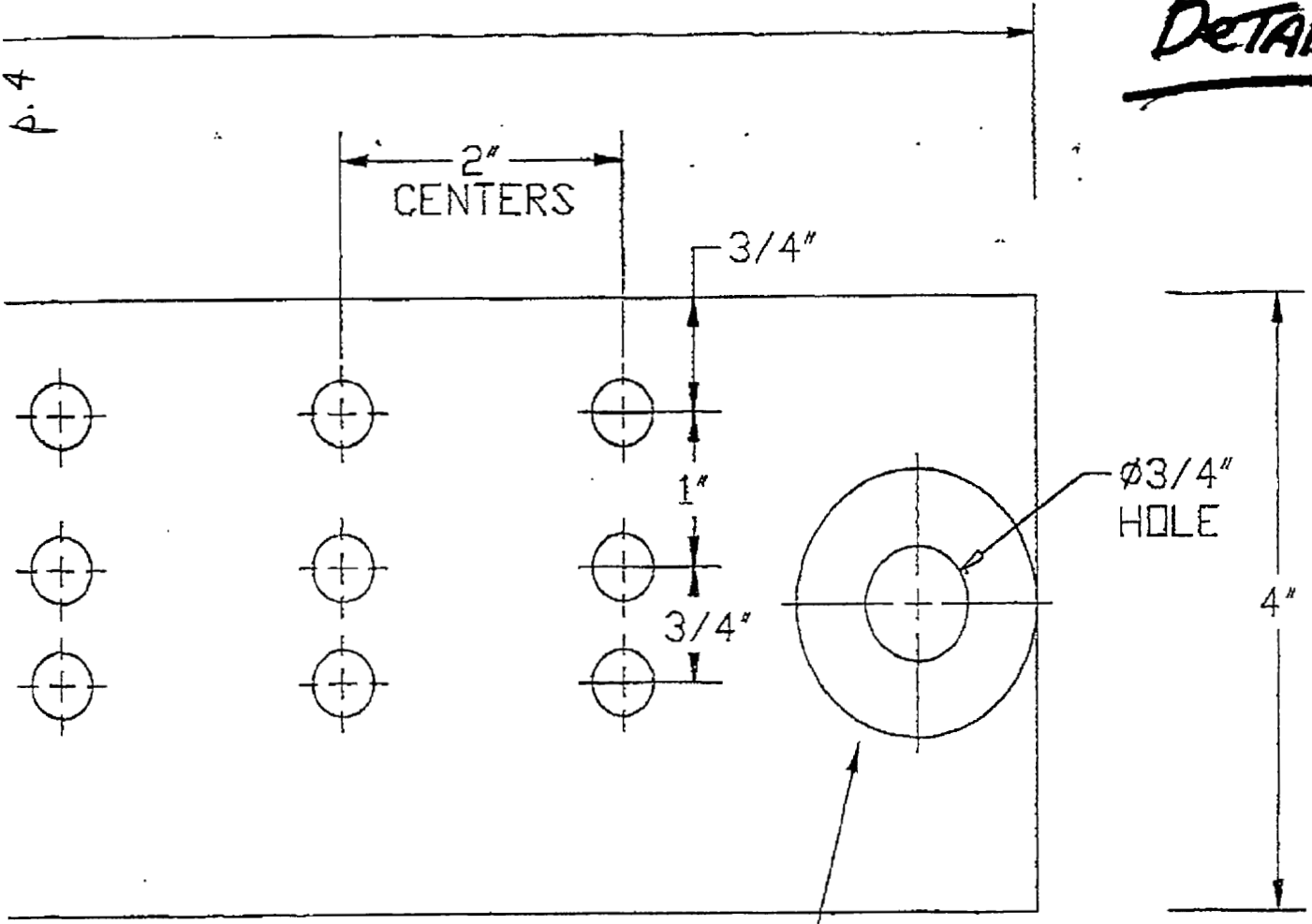
777

LINE ITEM	DESCRIPTION	HOURS	RATE	AMOUNT
1	CUSTOM BUILT GROUND BAR ASSEMBLY—PER SPRINT STANDARDS 18" X 4"	---	---	166.00
2	3/8" SILICON BRONZE BOLT KIT: (BOLT, 2 FLAT WASHERS, LOCK WASHER, NUT)— \$ 2.40 EACH X 14	---	---	33.60
3	**OPTIONAL: 1/2" SILICON BRONZE BOLT KIT: (BOLT, 2 FLAT WASHERS, LOCK WASHER, NUT)—\$ 4.29 EACH X 14			
ESTIMATED SUBTOTAL				219.60
ESTIMATED TAX				0.00
ESTIMATED TOTAL				219.60

↑
 Does NOT include
 SHIPPING / TAX

GROUND BAR ASSEMBLY:





DETAIL VIEW:

5/8" BOLT X 1-1/4"
 Ø1 3/4" FLAT WASHER
 LOCKWASHER FOR 5/8" BOLT
 RED INSULATOR
 WALL BRACKET

Exhibit JRD-10

p.5

QUOTE

DATE: ~~June 20, 2003~~

Vendor Name removed

LAKE PLACID, FL 33062-1589

To:
 SPRINT-FLORIDA, INCORPORATED
 P.O. BOX 165000
 ALTAMONTE SPRINGS, FL 32716-6000
 MAIL CODE: FLAPKA0241

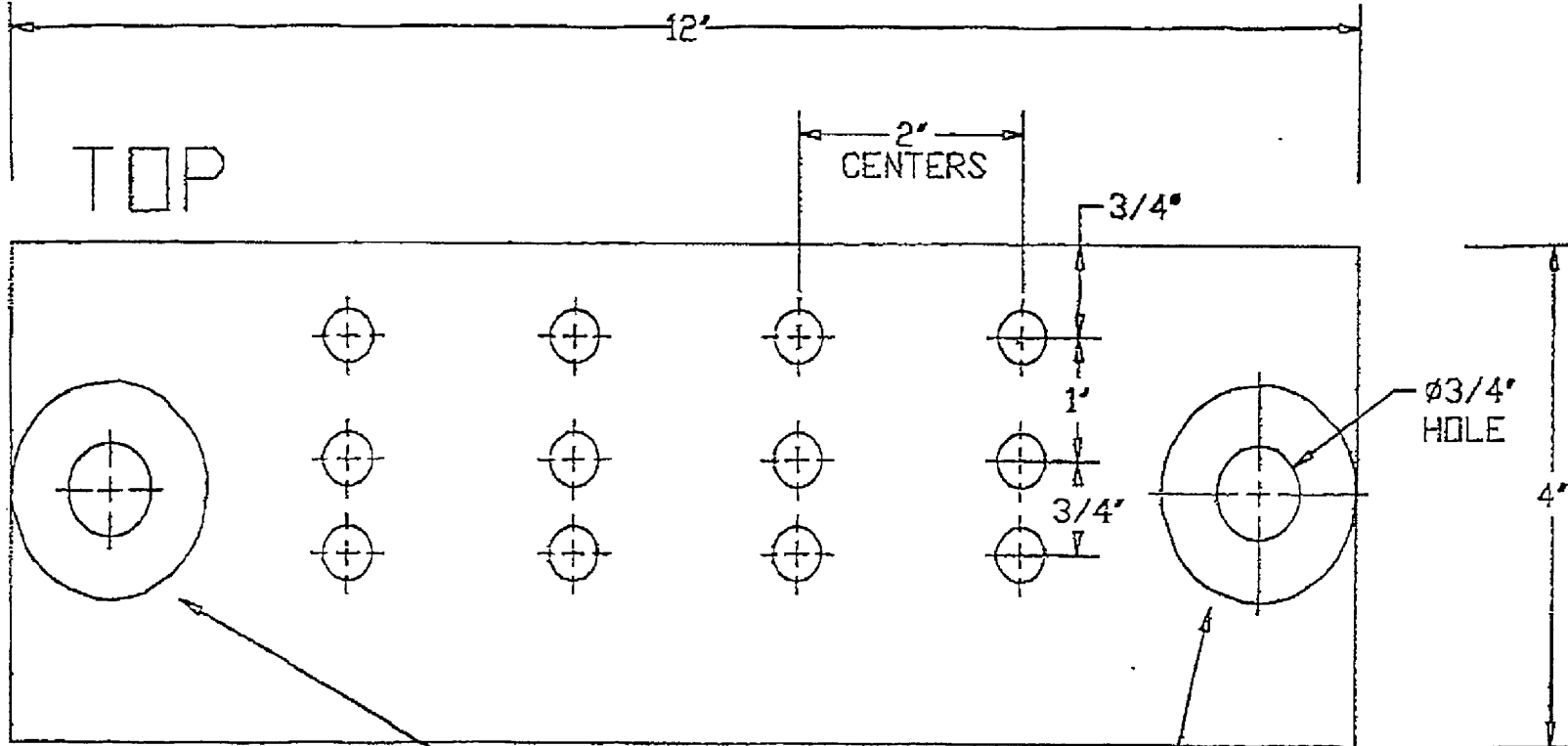
QUOTE #: 0396-SF
 SITE NAME:
 WORK ACTIVITY #:
 JOB DESCRIPTION: CUSTOM BUILT GROUND BAR
 ASSEMBLY (4" X 12").

ATTN: GEORGE NILSEN

535

LINE ITEM	DESCRIPTION	HOURS	RATE	AMOUNT
1	CUSTOM BUILT GROUND BAR ASSEMBLY—PER SPRINT STANDARDS 12" X 4"	---	---	176.00
2	3/8" SILICON BRONZE BOLT KIT: (BOLT, 2 FLAT WASHERS, LOCK WASHER, NUT)— \$ 2.40 EACH X 3	---	---	19.20
3	**OPTIONAL: 1/2" SILICON BRONZE BOLT KIT: (BOLT, 2 FLAT WASHERS, LOCK WASHER, NUT)— \$ 4.20 EACH X 3			
ESTIMATED SUBTOTAL				195.20
ESTIMATED TAX				0.00
ESTIMATED TOTAL				195.20

Exhibit JRD-10
p. 6



- 5/8" BOLT X 1-1/4"
- Ø1 3/4" FLAT WASHER
- LOCKWASHER FOR 5/8" BOLT
- RED INSULATOR
- WALL BRACKET

Exhibit JRD-10
p.7

Vendor Name removed

QUOTE
DATE: 07/01/2003

LAKE PLACID, FL 32862-1689

To:
SPRINT-FLORIDA, INCORPORATED
P.O. BOX 165000
ALTAMONTE SPRINGS, FL 32716-5000
MAIL CODE: FLAPKA0241

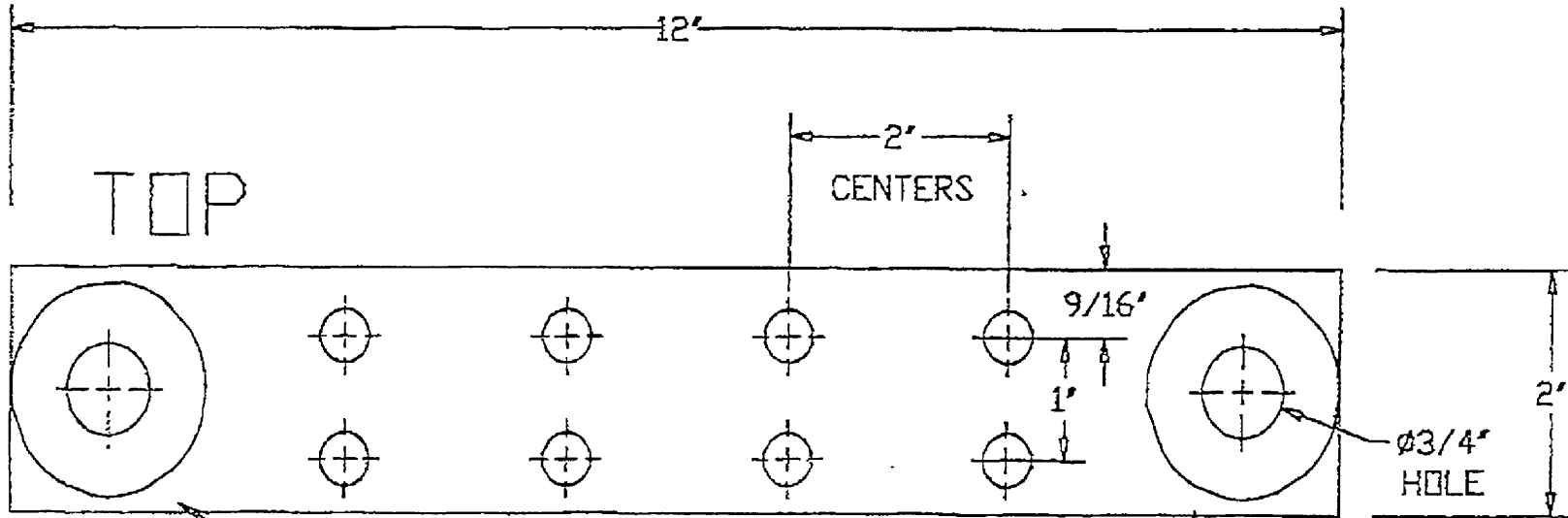
ATTN: GEORGE NILSEN

QUOTE #: 0397-SF
SITE NAME:
WORK ACTIVITY #:
JOB DESCRIPTION: CUSTOM BUILT GROUND BAR
ASSEMBLY (2" X 12").

2/0

LINE ITEM	DESCRIPTION	HOURS	RATE	AMOUNT
1	CUSTOM BUILT GROUND BAR ASSEMBLY—PER SPRINT STANDARDS 12" x 2"	---	---	188.00
2	3/8" SILICON BRONZE BOLT KIT: (BOLT, 2 FLAT WASHERS, LOCK WASHER, NUT)~ \$ 2.40 EACH X 8	---	---	19.20
				<i>3/8" HARDWARE ONLY (NO OPTION)</i>
ESTIMATED SUBTOTAL				188.20
ESTIMATED TAX				0.00
ESTIMATED TOTAL				188.20

Exhibit JRD-10
p. 8



- 5/8" BOLT X 1-1/4"
- Ø1 3/4" FLAT WASHER
- LOCKWASHER FOR 5/8" BOLT
- RED INSULATOR
- WALL BRACKET

Exhibit JRD-10
p. 9

QUOTE

DATE: ~~August 2019~~

Vendor Name Removed

LAKE PLACID, FL 33862-1589

To:
SPRINT-FLORIDA, INCORPORATED
P.O. BOX 165000
ALTAMONTE SPRINGS, FL 32716-5000
MAIL CODE: FLAPKA0241

ATTN: GEORGE NILSEN

QUOTE #: 0405-SF
SITE NAME:
WORK ACTIVITY #:
JOB DESCRIPTION: BONDING GROUND BARS-
MATERIAL COSTS.

LINE ITEM	DESCRIPTION	HOURS	RATE	AMOUNT
1	MATERIAL TO BOND GROUND BARS FOR 777	---	---	2,006.96
2	MATERIAL TO BOND GROUND BARS FOR 535	---	---	1,668.34
3	MATERIAL TO BOND GROUND BARS FOR 2/0	---	---	1,075.71
	SEE BELOW FOR DETAIL.....			
ESTIMATED SUBTOTAL				
ESTIMATED TAX				
ESTIMATED TOTAL				

100' OF 777 CABLE= \$1,300.00
TWO 777 LUGS= \$89.80
FOUR 1/2" HARDWARE ASSEMBLIES= \$17.16
MISC. PVC, HANGERS, ETC.= \$600.00

100' OF 535 CABLE= \$1,014.00
TWO 535 LUGS= \$37.18
FOUR 1/2" HARDWARE ASSEMBLIES= \$17.16
MISC. PVC, HANGERS, ETC.= \$600.00

100' OF 2/0 CABLE= \$452.00
TWO 2/0 LUGS= \$14.40
FOUR 3/8" HARDWARE ASSEMBLIES= \$9.31
MISC. PVC, HANGERS, ETC.= \$600.00

Exhibit JRD-10

p. 10

QUOTE

DATE: ~~August 7, 2003~~

Vendor Name removed

LAKE PLACID, FL 33862-1589

To:
SPRINT-FLORIDA, INCORPORATED
P.O. BOX 165000
ALTAMONTE SPRINGS, FL 32716-5000
MAIL CODE: FLAPKA0241

QUOTE #: 0404-SF
SITE NAME: N/A
WORK ACTIVITY #:
JOB DESCRIPTION: BONDING GROUND BARS-
LABOR COSTS.

ATTN: GEORGE NILSEN

LINE ITEM	DESCRIPTION	HOURS	RATE	AMOUNT
1	LABOR TO BOND GROUND BARS - USING 100' OF EITHER (777), (535), OR (2/0) CABLE.	---	---	2,250.00
2	ENGINEERING	---	---	50.00
ESTIMATED SUBTOTAL				2,300.00
ESTIMATED TAX				0.00
ESTIMATED TOTAL				2,300.00