ORIGINAL

Sprint - Florida, Incorporated

Investigation into Pricing of Unbundled Network Elements

Docket 990649-TP

Volume II

Inputs

Sprint Costing Input Documentation
Docket No. 990649-TP
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1. Executive Summary

Sprint's company specific inputs reflect the realities of providing service in its Florida operating territory. Sprint's recent experience with actual purchase, installation, and ongoing maintenance of telephone plant equipment provides the best information for predicting the forward looking UNE costs within Sprint's service territory. The inputs are based upon current vendor prices for material and equipment plus Florida labor costs for engineering and installation. The material and labor prices are both documented and verifiable. Sprint operates under price cap regulation in Florida so there is proper incentive to purchase, install and maintain plant in the most efficient manner possible.

The input documentation is broken into six categories, Loop, Switching, Transport, Database Services, and SS7.

Loop inputs consists of:
- Cable Costs
- Structure Costs
- Plant Mix
- Digital Loop Carriers
- Service Area Interfaces
- Network Interface Devices
- Cable Fill factors

The Switching inputs Consist of:
- Definition
- Global Inputs

Transport inputs consist of:
- Equipment Sizing
- Capacity Standards
- Equipment Costs

Database Services include
- Toll-Free Query
- CNAM Query
- LIDB Query
- LNP Database Query

SS7 Services include
- STP Link
- STP Switching

The recent factual and objective data provides the best basis for predicting the forward looking cost of constructing telephone plant in Sprint's service territory. Inputs developed in this fashion provide the most verifiable and objective data available for estimating the cost of rebuilding a network in that same market.

2. Loop Inputs

2.1. Cable Costs

2.1.1. Definition

2.1.1.1. Copper cable

Costs are based on filled, single jacketed cable for all applications. The model allows for 24 and 26 gauge cable. Twenty four (24) gauge cable is not produced in sizes of 3,000 pairs and above, so the cost of 26-gauge cable is used for these sizes. The installed cost includes materials, exempt material, sales tax, placement, splicing, and engineering costs.

Installed Costs = material * ((1 + exempt material factor) * (1 + sales tax rate)) + placement + (splicing * number of pairs) + engineering.

Table 2.1 shows the total installed cost for copper cable.

Table 2.1

Size	Aerial		Buried		Underground	
	24 Gauge	26 Gauge	24 Gauge	26 Gauge	24 Gauge	26 Gauge
4200	$50.28	$50.28	$50.05	$50.05	$53.08	$53.08
3600	$43.46	$43.46	$42.99	$42.99	$46.01	$46.01
3000	$37.25	$37.25	$36.56	$36.56	$39.51	$39.51
2400	$31.65	$27.03	$30.78	$25.95	$33.59	$29.23
2100	$29.18	$23.70	$28.24	$22.50	$30.94	$25.77
1800	$25.75	$20.71	$24.69	$19.41	$27.38	$22.63
1200	$17.65	$14.67	$16.29	$13.17	$19.11	$16.30
900	$13.82	$11.63	$12.31	$10.03	$15.17	$13.11
600	$10.06	$ 8.71	$ 8.42	$ 7.01	$11.31	$10.03
400	$ 7.35	$ 6.37	$ 6.19	$ 5.17	$ 9.06	$ 8.14
300	$ 6.12	$ 5.26	$ 4.92	$ 4.02	$ 7.80	$ 6.98
200	$ 4.78	$ 4.28	$ 3.53	$ 3.01	$ 6.43	$ 5.96
100	$ 3.18	$ 2.93	$ 2.26	$ 2.00	$ 5.17	$ 4.93
50	$ 2.56	$ 2.45	$ 1.62	$ 1.51	$ 4.53	$ 4.43
25	$ 2.25	$ 2.18	$ 1.30	$ 1.23	$ 4.21	$ 4.15
18	$ 2.13	$ 2.08	$ 1.18	$ 1.13	$ 4.09	$ 4.05
12	$ 2.07	$ 2.05	$ 1.11	$ 1.10	$ 4.03	$ 4.01

Workpaper 1 shows the detailed cost of each additive into the cost of installed cables.

2.1.1.2. Fiber Cable

Sprint uses filled fiber cable for all fiber applications. Costs are developed for aerial, buried and underground fiber for standard size cable ranging from 12 to 288 fibers, and stated on a per foot basis. The installed cost includes Materials, Exempt Material, sales tax, placement, splicing, and engineering costs.

> Installed Costs = material * ((1 + exempt material factor) * (1 + sales tax)) + placement + (splicing * number of pairs) + engineering.

Table 2.2 shows the installed costs for fiber cable on a cost per foot basis.

Table 2.2

Number of Fibers	Aerial	Buried	Underground
288	$7.89	$8.48	$11.27
144	$4.78	$4.78	$ 7.12
96	$3.74	$3.52	$ 5.72
72	$3.54	$2.87	$ 5.37
60	$2.98	$2.61	$ 4.71
48	$2.85	$2.24	$ 4.50
36	$2.62	$1.96	$ 4.18
24	$2.27	$1.68	$ 3.74
18	$2.12	$1.55	$ 3.55
12	$2.05	$1.39	$ 3.43

Workpaper 1 shows the detailed cost of each additive into the cost of installed cables.

2.1.2. Material Costs

Material cost is the cost of the copper or fiber cable plus applicable delivery and handling charges. The purchase price of this cable is from vendor quotes. The material costs for cable can be seen in Workpaper 1.

2.1.3. Exempt Material

Exempt material includes miscellaneous materials such as splice enclosures and mounting hardware. The exempt material factor is calculated by taking the total exempt material costs for a cable class (aerial, buried, or underground) and dividing it by the total cable material investment, plus other reportable material cost of that cable class. For example Sprint installed $8,351,698 worth of buried cable during 1998 (the most recent year for which data is available) and $1,342,713 worth of other reportable buried material costs. Included in the buried cable projects was $3,782,499 worth of exempt material. Therefore the exempt material factor for buried copper is 39.02% ($3,782,499 / ($8,351,698 + 1,342,713)). The totals for material and exempt material come from PACS (Project Administration and Costing System). PACS is used by Sprint to track work activities and accumulate costs. Table 2.3 shows the exempt material factors for the various cable classes. See Workpaper 2 for detailed calculations of exempt material factors.

Table 2.3

	Aerial	Buried	Underground
Copper	32.68%	39.02%	25.05%
Fiber	4.87%	16.42%	11.57%

2.1.4. Sales Tax

Sales tax is the tax paid on the purchase of materials and exempt materials. The sales tax of 6.59% in Florida represents all state and local taxes that would be applied to the purchase of goods.

2.1.5. Placement Costs

Placement costs are the labor to install the cable either on a pole (aerial), in the ground (buried) or in a conduit (underground). The placement cost per foot is calculated by taking the placement cost by cable class and dividing the total number of sheath miles installed by cable class. This information is stored in the PACS database mentioned earlier with data from 1998 being used. The cost of construction normally associated with buried cable was removed from the placement costs for buried cable. The placement costs for buried and underground cable do not vary significantly by cable size.

The placement of aerial copper cable does vary by size of the cable. Sprint uses the breakpoint of 12 to 100 pairs, 200 to 400 pairs, and 600 pairs or greater, which reflect the breakpoints used for billing by Sprint contractors. The breakpoints are stored in NETCAP (Network Contractor Administration Program) which Sprint uses to track construction jobs completed by contractors. Data from 1998 was used in this analysis. Workpaper 2 shows the quantity of cable placed by cable size and the total cost of the placement and the average cost per foot.

2.1.6. Splicing

Splicing occurs at cable junctions, cable size changes, where side legs intersect, where the cable reel ends or at cable closures. Slicing is based upon a per pair-foot basis. In other words, if there is a 100 pair underground cable then the splicing would be $0.39 (100 pairs * .0039 splicing factor) per foot. The splicing factor is developed much in the same way as placement. Splicing costs for 1998 for a plant class (copper – buried, for example) is divided by the total 1998 pair-feet placed of that plant class. This data resides in Sprint's PACS system. See Workpaper 2 for detailed calculations of the splicing cost per pair-feet.

Sprint found that the aerial copper cable splicing cost was double that of buried. In discussion with Sprint's outside plant experts it was determined that aerial and buried splicing costs should be similar. In order to correct this inequity Sprint set the copper aerial splicing cost equal to that of the buried cost.

2.1.7. Engineering

The cost of engineering includes route layout, obtaining permits, and securing right of ways. The cost of these activities does not increase in relation to cable size therefore engineering is calculated on a per foot basis. Total engineering costs for 1998 by plant type (e.g., buried copper) is divided by the total number of sheath feet installed by plant type during that time frame. This data is found in the PACS system. The engineering cost is then added to the cable cost. Please see Workpaper 2 for detailed calculations of engineering costs.

2.2. Serving Area Interface

2.2.1. Definition

Serving Area Interfaces (SAIs) are used as the interface between copper feeder and distribution cables or between a DLC and the distribution cables. It is at the SAI that the connections are made between the feeder and distribution cables. Sprint uses the ready access methodology, which indicates that both the feeder and distribution cables are terminated at the SAI, but the jumper wire is not connected. Therefore, the circuit is not completed until there is a request for service, resulting in a lower overall cost. Table 2.4 shows the installed costs of both the indoor and outdoor SAIs.

Table 2.4 SAI Installed Cost

Size	Indoor	Outdoor
25	$ 347.18	$ 4,152.69
50	$ 558.92	$ 4,170.44
100	$ 969.48	$ 4,229.62
200	$ 2,726.06	$ 4,449.43
300	$ 4,006.16	$ 4,674.19
400	$ 5,235.80	$ 4,799.53
600	$ 7,602.40	$ 8,050.83
900	$11,172.33	$ 9,004.09
1200	$14,638.33	$ 9,757.65
1800	$21,726.23	$12,263.01
2100	$25,296.17	$15,817.94
2400	$28,903.73	$16,608.19
3000	$36,048.36	$18,767.41
3600	$43,084.30	$19,493.44
4200	$50,988.93	$25,066.96

Please see workpaper 3 for the detailed calculations for indoor and outdoor SAIs.

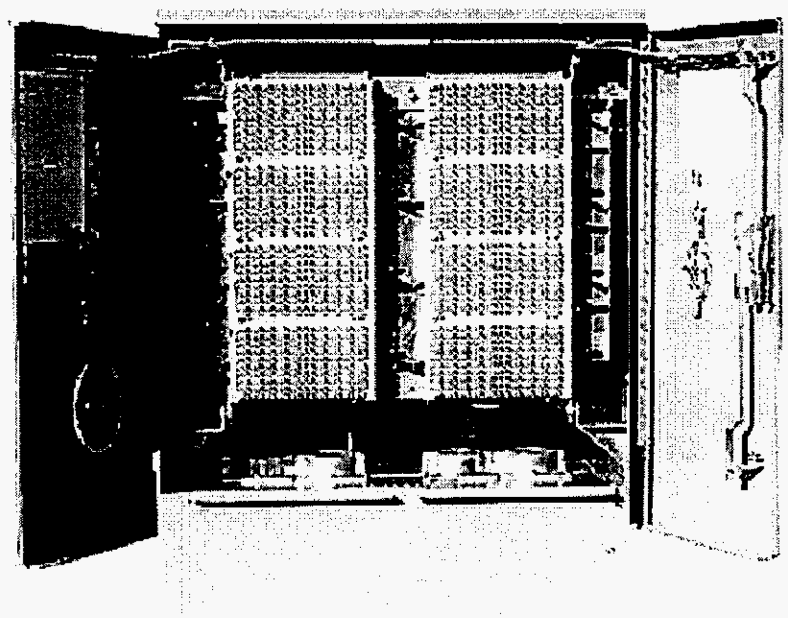
2.2.1.1. Indoor SAI

Indoor building terminals are placed in multi-tenant buildings and are sized for the number of lines terminated at that location. Indoor SAI's generally consist of terminal blocks fastened to a plywood board located in the basement of a building. Since the indoor SAI is a cable entrance point into a building, electrical surge protection is included in the indoor SAI design and cost.

2.2.1.2. Outdoor SAI

The outdoor SAI is the interface between copper feeder cables and copper distribution cables. SAI sizes from 25 to 4200 are pad mounted interface cabinets. A typical pad-mounted outdoor SAI is shown in picture 2.1.

Picture 2.1 – Outdoor SAI



2.2.2. Cost Calculations

2.2.2.1. Indoor SAI

Material costs include terminals (or Main Distribution Frames for larger pair sizes) with 40-foot tip cables, wall-mounted brackets, 5-pin protection modules, splice cases, tie cables, and blocks. The labor time estimates are for splicing and installation of the terminals, plus travel time, and were determined by an outside plant expert. Current material costs were obtained from vendor quotes for Sprint-standard components. Florida-specific labor rates and tax rates were utilized. See Table 2.4 for SAI costs.

2.2.2.2. Outdoor SAI

The material costs include the following components: a cabinet, template, and frame. The time to install the components was estimated by a Sprint outside plant expert. The labor estimates include the time to place the cabinet, terminate the feeder and distribution cables, and travel time. The remaining cost is the pad installed by an outside vendor. The material and labor costs for the pads were estimated by a Sprint outside plant expert. Current material costs were obtained from vendor quotes for Sprint-standard components. Florida-specific labor rates and tax rates were utilized. Workpaper 3 shows the details of the material and labor estimates and costs.

2.3. Drop Terminal

2.3.1. Definition

2.3.1.1. Aerial Drop Terminals

Aerial drop terminals provide the point of interconnection between the cable pair in an aerial distribution cable and an aerial drop wire. The terminal mounts on the cable suspension strand near the pole, or on the pole, and consists of a weatherproof cover that contains binding posts, which are spliced via a stub cable to the distribution cable. The aerial drop wire connects to one set of binding posts on a terminal block within the terminal.

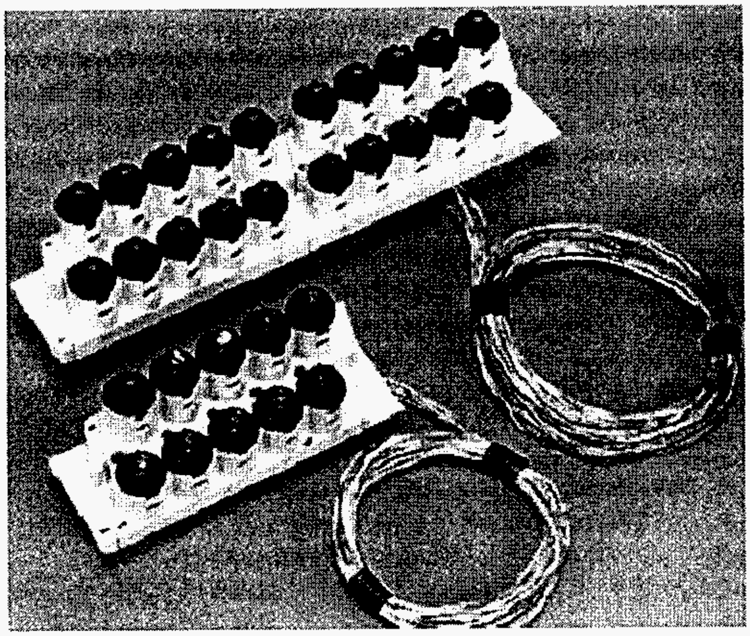
Terminal costs in the model reflect ready access enclosures that will accommodate up to 25 pair terminal blocks. Terminal blocks placed by the model are sized based on the number of connecting drops, and will be a 6 pair, 12 pair or 25 pair terminal block (See Picture 2.2 for an example of 10- and 20-pair blocks).

2.3.1.2. Buried Drop Terminals

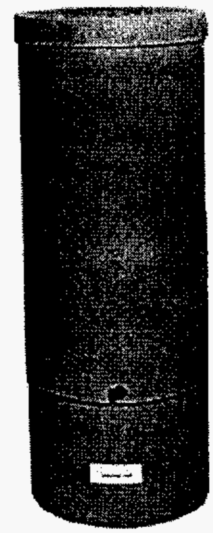
Buried drop terminals provide the point of interconnection between the cable pair in a buried or underground distribution cable and a buried drop wire. Terminal blocks are placed above ground in a pedestal, which is a free standing metal or plastic housing in which the distribution cable is accessible. Similar to aerial drop terminals, buried terminals are spliced to the buried or underground distribution cable via a stub cable. Buried drop wires are then connected to one set of the binding posts on the terminal block.

Terminal costs in the model reflect accessible enclosures that will accommodate up to 25 pair terminal blocks. Terminal blocks placed by the model are sized based on the number of connecting drops, and will be a 6 pair, 12 pair or 25 pair terminal block (See Picture 2.3 for an example of a buried drop terminal housing).

Picture 2.2 - Aerial Drop Blocks



Picture 2.3 - Buried Drop Terminal



2.3.2. Cost Calculations

2.3.2.1. Aerial Drop Terminal

The installed cost of the aerial drop terminal includes the splice closure, terminal blocks, and labor for installation and splicing. Material costs are based upon vendor quotes and are loaded for sales tax. Installation costs are based upon time estimates from a Sprint outside plant expert and Florida specific labor rates. See Workpaper 4 for the detailed calculations.

Table 2.5 Aerial Drop Terminal Installed Cost

Size	Installed Cost
6	$ 71.45
12	$ 90.75
25	$164.02

2.3.2.2. Buried Drop Terminal

The installed cost of the buried drop terminal includes the splice closure, terminal blocks, and labor for installation and splicing. Material costs are based upon vendor quotes and are loaded for sales tax. Installation costs are based upon time estimates from an outside plant expert and Florida specific labor rates. See Workpaper 4 for the detailed calculations.

Table 2.6 Buried Drop Terminal Installed Cost

Size	Installed Cost
6	$ 55.74
12	$ 75.06
25	$116.08

2.4. Drop Costs

2.4.1. *Definition*

2.4.1.1. Aerial

Aerial drop costs include the cost of the cable that is placed from the terminal on or near a pole, to the customer's location, terminating at the NID. Inclusive in this cost are the attachment devices and the labor to install the cable. The aerial drop material cost is a composite of 2 pair, 18 ½ gauge copper for residential customers, and 6-pair 22 gauge copper cable for business customers. These two cable types were weighted based upon a ratio of residential and business lines to total lines in Florida. Material costs, including delivery and handling, are from vendor quotes and are loaded for sales tax.

2.4.1.2. *Buried*

Buried drop costs are the costs of the cable that is buried from the pedestal to the NID at the customer's premise. The buried drop material costs are a composite of 4-pair, 18 ½ gauge copper cable for residential customers, and 6-pair, 22 gauge copper cable for business customers. These two cable types were weighted based upon a ratio of residential and business lines to total lines in Florida. Material costs are from vendor quotes and are loaded for sales tax.

2.4.2. Cost Calculations

Table 2.7 Aerial and Buried Installed Drop Costs

Description	Installed Cost
Buried Drop	$0.62
Aerial Drop	$0.63

2.4.2.1. Aerial Drop

The cost of aerial drops is an installed cost, which includes the material cost and the labor cost to install the cable. To determine the labor portion, a Florida specific installation time and average drop length is determined by an outside plant expert. A Florida-specific loaded labor rate is then applied to the installation time to determine the installation cost per drop. The installation cost per drop is then divided by the drop length to determine a labor cost per foot. Sprint I & R Technicians generally complete installation of aerial drops.

Included in the cost of the residential and business drops is the material cost based on vendor quotes including delivery of the material and sales tax. The cable cost is a weighted cost of the 6 pair cable used for business drops and a 2 pair cable used for residential drops. These two cable types were weighted based upon a ratio of residential and business lines to total lines in Florida. This weighted material cost is added to the per foot labor charge to determine the aerial drop cost per foot. Please see Workpaper 5 for the detailed calculations of this input.

2.4.2.2. Buried Drop

The cost of buried drops is an installed cost, which includes the material cost and the labor cost to install the cable. Labor costs are based on Florida-specific contracts for burying drops which are paid on a per drop basis, not a per foot basis. The per-foot labor cost is calculated by dividing the contract installation cost per drop by the average buried drop length. A Florida outside plant expert provides the average drop length.

Included in the cost of the residential and business drops is the material cost based on vendor quotes including delivery of the material and sales tax. The cable cost is the weighted cost of the 6 pair cable used for business drops and a 4 pair cable used for residential drops. These two cable types were weighted based upon a ratio of residential and business lines to total lines in Florida. This weighted material cost is then added to the per foot labor charge to determine the aerial drop cost per foot. Please see Workpaper 5 for the detailed calculations of this input.

2.5. Digital Loop Carrier

2.5.1. Definition

Digital Loop Carrier (DLC) is network transmission equipment used to provide pair gain on a local loop. The cost of a DLC is broken down into three components:

- DLC Central Office Terminal (COT) Investment
- Fixed Digital Loop carrier remote System Cost
- Variable Digital Loop carrier remote System Cost

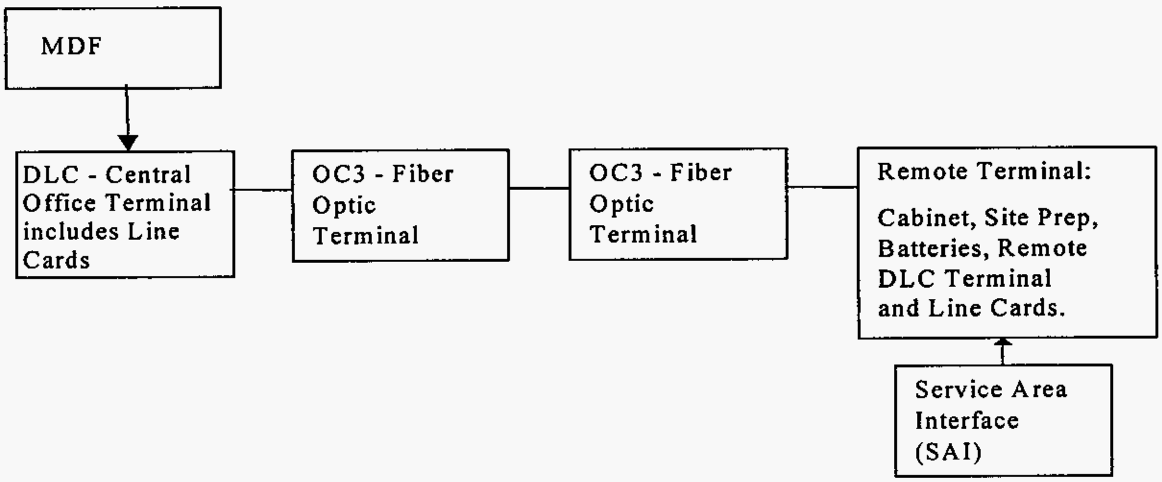
DLC's are classified as either High Density (241 to 2,016 lines) or Low Density (0 to 240 lines).

2.5.2. Cost Calculations

Material cost for both the High and Low Density DLC configurations have been obtained from the national purchasing contract. Florida specific sales tax was added to the material cost which includes shipping and handling. Labor costs for the DLC's include engineering, outside plant, and central office labor necessary to install and test the equipment. Also included in the costs of the DLC is site preparation. Site preparation includes obtaining permits and right-of-ways, installation of a concrete pad, and any landscaping required as a result of local ordinances. Workpaper 6 shows all the detail for the material, labor, and site preparation fees for both the large and small DLC's.

2.5.3. High Density DLC Configuration

Picture 2.4 - Large NGDLC Double Ended Configuration



2.5.3.1. DLC Central Office Investment

DLC Central Office investment includes material and labor costs for installing Central Office Equipment and an OC3 Fiber Optic Central office terminal. See Table 2.8 for the investment cost of Central Office Investment.

Table 2.8 – Large NGDLC Cost

Line Size	COT Investment	RT Fixed Costs	RT Variable Costs
121	$11,278.32	$32,285.91	$140.00
193	$11,278.32	$32,285.91	$140.00
241	$11,278.32	$122,993.17	$115.05
385	$11,278.32	$127,553.13	$115.05
673	$49,452.07	$138,478.75	$115.05
1345	$63,889.11	$168,070.49	$115.05

2.5.3.1.1. Central Office Equipment

End user connection to a CLEC requires line cards in the DLC Central Office Terminal to provide a physical connection to the customer (known as a Double Ended or Universal configuration). This equipment provides the ability to break out an individual voice or data circuit coming from the DLC field Remote Terminal (RT), where the customer circuit resides, for a hand-off of those individual circuits at the Central Office to a CLEC.

2.5.3.1.2. OC3 Fiber Optic Central Office Equipment

OC3 Fiber Optic Central Office Terminal equipment is installed at the Central Office and is required to provide OC3 capacity from the COT to the RT. This equipment sends and receives the fiber optic light codes on the central office end of the DLC system. The OC3 standard provides 2016 voice channel capacity to the DLC.

2.5.3.2. Digital Loop Carrier Remote System Cost – Fixed Cost

Digital Loop Carrier Remote System Fixed Cost includes material and labor for OC3 Fiber Optic Remote Terminal, DLC Cabinet, Batteries, and the Remote DLC Terminal. See Table 2.8 for the Remote Terminal Fixed Cost.

2.5.3.2.1. OC3 Fiber Optic Remote Terminal

This equipment is located at the DLC pad and is used to provide OC3 fiber capacity from the COT to the RT. This equipment sends and receives the fiber optic light codes on the subscriber end of the DLC system.

2.5.3.2.2. DLC Cabinet

The DLC cabinet is an environmentally hardened enclosure that houses the field end DLC Terminal electronics and batteries. It is generally located in easements on a cement pad. The site preparation is part of the DLC cabinet cost and is based upon Florida specific costs and local zoning ordinances.

2.5.3.2.3. Batteries

Batteries are for emergency power backup in the event of a commercial power outage. The batteries are recharged by a charger installed in the DLC Cabinet.

2.5.3.2.4. Remote DLC Terminal

The DLC Terminal is the electronic equipment that provides ring generation and dial tone and converts DS1 (24 voice channels) signals into single voice circuits (DS0s) to the customers. This equipment is installed in the DLC Cabinet located in the field location.

2.5.3.3. Digital Loop Carrier Remote System Cost – Variable Cost

2.5.3.3.1. Line Card

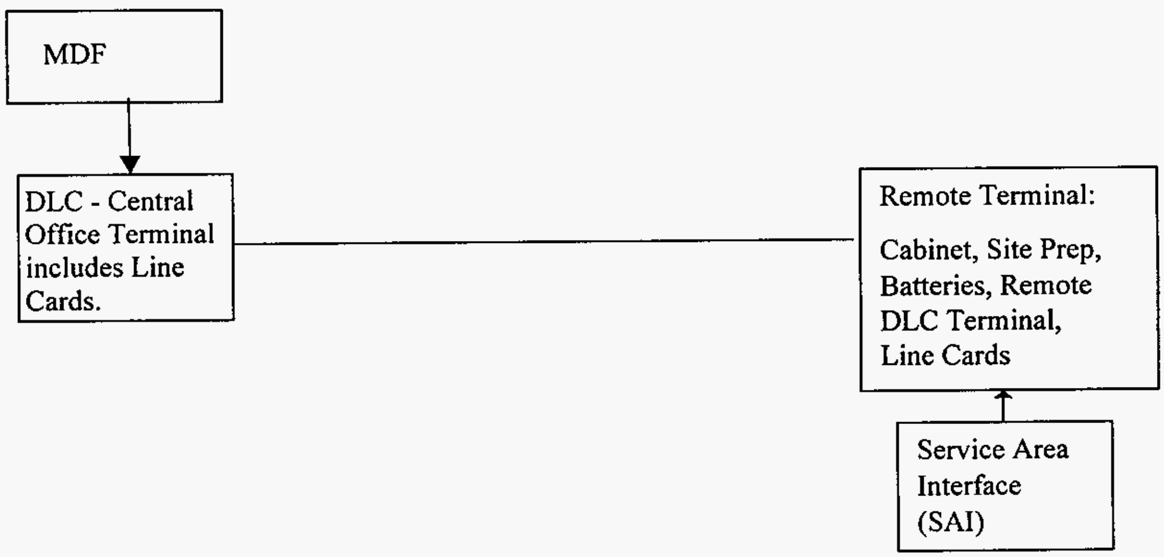
DLC Line Cards are plug-in printed circuit boards that provide either analog voice grade or digital data interfaces for private or public network use. Although there are several card types listed, only the voice grade or POTS card is used in calculating UNE pricing. See Table 2.8 for the Remote Terminal Variable Cost.

2.5.4. Low Density DLC

Table 2.9 – Small NGDLC Cost

Line Size	COT Investment	RT Fixed Costs	RT Variable Costs
0	$11,278.32	$20,098.91	$140.00
25	$11,278.32	$20,098.91	$140.00
49	$11,278.32	$23,360.07	$140.00
97	$11,278.32	$23,360.07	$140.00

icture 2.5 - Small NGDLC Double Ended Configuration



2.5.4.1. DLC Central Office Investment

DLC Central Office investment includes material and labor costs for Central Office Equipment. See Table 2.9 for the investment cost of Central Office Investment.

2.5.4.1.1. Central Office Equipment

End user connection to a CLEC requires line cards in the DLC Central Office Terminal to provide a physical connection to the customer (known as a Double Ended or a Universal configuration). This equipment provides the ability to break out an individual voice or data circuit coming from the DLC field Remote Terminal (RT), where the customer circuit resides, for a hand-off of those individual circuits at the Central Office to a CLEC.

2.5.4.2. Digital Loop Carrier Remote System Cost – Fixed Cost

Digital Loop Carrier Remote System Fixed Cost includes material and labor for DLC Cabinet, Batteries, and the Remote DLC Terminal. See Table 2.9 for the Remote Terminal Fixed Cost.

2.5.4.2.1. DLC Cabinet

The DLC cabinet is an environmentally hardened enclosure that houses the Field end DLC Terminal electronics and batteries. It is generally located in easements on a cement pad. The site preparation is part of the DLC cabinet cost and is based upon Florida specific costs and local zoning ordinances.

2.5.4.2.2. Batteries

Batteries are for emergency power backup in the event of a commercial power outage. The batteries are recharged by a charger installed in the DLC Cabinet.

2.5.4.2.3. Remote DLC Terminal

The DLC Terminal is the electronic equipment that provides ring generation and dial tone and converts DS1 (24 voice channels) signals into single voice circuits (DS0s) to the customers. This equipment is installed in the DLC Cabinet located in the field location.

2.5.4.3. Digital Loop Carrier Remote System Cost – Variable Cost

2.5.4.3.1. Line Card

DLC Line Cards are plug-in printed circuit boards that provide either analog voice grade or digital data interfaces for private or public network use. Although there are several card types listed, only the voice grade or POTS card is used in calculating UNE pricing. See Table 2.9 for the Remote Terminal Variable Cost.

2.6. Structure

2.6.1. Definition

Structure costs are those costs related to the construction supporting the copper and fiber cables comprising the telephone loop network. These structures are the poles and associated anchors/guys for aerial plant, the conduit system for underground plant, and the trench for buried plant. Structure costs for aerial and underground plant include the labor required for placement of the structure as well as the related materials (e.g., poles, anchors/guys, conduit, and manholes), while structure costs for buried plant include only the labor necessary to create the opening in the ground. Table 2.10 shows the summary results of the normal structure costs including the effect of sharing percentages. Workpaper 7 shows the detail of the calculations for all three structure types (aerial, buried, and underground.

Table 2.10

Normal Structure						
	Underground		Buried		Aerial	
Density	Feeder	Distr	Feeder	Distr	Feeder	Distr
0	$3.94	$3.94	$2.34	$2.34	$141.29	$141.29
6	$3.84	$3.74	$2.32	$2.29	$141.29	$141.29
101	$3.74	$3.55	$2.29	$2.23	$141.29	$141.29
201	$4.26	$3.69	$3.18	$2.89	$145.88	$145.88
651	$4.15	$3.69	$3.12	$2.89	$145.88	$145.88
851	$4.15	$3.69	$3.12	$2.89	$145.88	$145.88
2551	$4.68	$4.41	$4.44	$4.22	$159.64	$159.64
5001	$4.68	$4.41	$4.44	$4.22	$159.64	$159.64
10000	$4.68	$4.41	$4.44	$4.22	$159.64	$159.64

2.6.2. Cost Calculations

2.6.2.1. Cost Calculations – Aerial Structure

Aerial structure costs consist of the material and installation cost of poles plus the material and installation cost of anchors/guys, converted to a per-pole cost based on the frequency of anchors/guys (expressed in terms of the number of poles between each placement of an anchor and guy). The summary of these costs can be seen in Table 2.10.

The cost of the poles is calculated by summing the loaded material and installation costs per pole and applying the percent assigned to telephone fraction to recognize that other entities (power, CATV) share the cost of the pole structure.

The percent of pole costs assigned to telephone was calculated based on the number of poles owned by Sprint, the carrying cost per pole, the number and cost of Sprint's attachments to other entities' poles, less the number and cost of other entities' attachments to Sprint poles. See Workpaper 7 for details of this calculation.

The cost of anchors and guys is calculated by summing the loaded material and installation costs per unit and then converting the per-unit price to a per-pole price based on the ratio of pole spacing to anchor/guy spacing. The anchor & guy cost is 100% assigned to telephone since all entities attached to a pole must provide the anchors & guys required for their aerial plant.

The source of the pole material cost is the vendor price at which Sprint can purchase poles on a truckload basis delivered to its operating areas. The anchor & guy material costs are the prices that Sprint is currently paying for the required equipment based upon vendor quotes including delivery and handling expenses. Exempt material loading is derived from actual 1998 company data. Sales tax is calculated using the appropriate Florida tax rate.

Installation costs are based on total contractor costs for the activities comprising pole placement and anchor/guy placement. Labor overheads are derived from actual 1998 company data.

Pole spacing inputs range from 150' to 250', with the closer spacing in more dense areas because of clearance requirements and larger cables which result in greater cable sag. Anchor and Guy spacing input range from 500' to 1500', to reflect that anchors & guys are placed only when required (e.g., for pole line direction changes). As with poles, the spacing is closer in more dense areas because of the greater number of direction changes necessary in urban areas. The spacing inputs are based on engineering judgment and company experience in placing aerial plant in Florida.

2.6.2.2. Cost Calculations – Underground Structure

The cost of underground structure consists of the costs for opening and closing the ground, the material and installation costs of conduit, and the material and installation costs of manholes and/or handholes.

The cost for opening and closing the ground is dependent on three variables: the activity used to open and close the ground (e.g., trench & backfill, boring, cut & restore pavement), the cost for each activity, and the percent assigned to telephone to reflect sharing of the conduit structure by multiple companies. A summary of these costs can be seen in table 2.10.

The cost per foot, frequency of activity, and percent assigned to telephone may be varied by density zone. The percent assigned to telephone generally decreases as density increases to reflect additional sharing opportunities in more urban areas.

The cost per foot and frequency of use for each item are based on the total level of actual placement activities performed by Sprint and its contractors. The percent assigned to telephone was based on the experience of Sprint related to construction sharing with other entities, taking into account the presence of others as well as the probability of coordination.

2.6.2.2.1. Cost Calculations – Conduit per duct foot

The cost of conduit consists of the loaded material cost of 4" PVC conduit, with no sharing assumed since the model does not build extra ducts that can be used by other companies. The cost of installing the PVC pipe is included in the structure costs discussed above. Table 2.11 shows the cost of the PVC Conduit.

Table 2.11 – Installed Conduit Cost per Foot

4" PVC Pipe
$1.02

2.6.2.2.2. Cost Calculation – Manhole Inputs

The cost of manholes consists of the loaded material and installation cost of appropriately sized manholes and/or handholes. The manholes are sized based on the required number of ducts in the conduit system. The cost by size can be seen in table 2.12. Manholes and handholes are spaced at user-defined distances, and multiplied by the percent assigned to telephone to reflect any sharing of the manhole by other entities. Manhole and handhole spacing is based upon the average distance between access points (Manholes and handholes) in the state of Florida. This is calculated by dividing total trench feet by the total number of access points (manholes and handholes).

Table 2.12 – Installed Manhole Cost

Size	Cost
0	$1,179.19
3	$3,632.40
5	$4,351.95
99	$2,667.99

2.6.2.3. Cost Calculations – Buried Structure

The cost of buried structure consists of the costs for opening and closing the ground, including any surface restoration required. A summary of these costs can be seen in Table 2.10.

The cost for opening and closing the ground is dependent on three variables: the activity used to open and close the ground (e.g., plowing, trench & backfill, boring, cut & restore pavement), the cost for each activity, and the percent assigned to telephone to reflect sharing of the buried structure by multiple companies. No sharing is assumed for plowing activities since this activity closes the ground immediately after placement of the cable, thus eliminating the possibility of other cables in the same trench.

The cost per foot, frequency of activity, and percent assigned to telephone may be varied by density zone. The percent assigned to telephone generally decreases as density increases to reflect additional sharing opportunities in more urban areas.

The cost per foot and frequency of use for each item are based on the total level of actual placement activities performed by Sprint and its contractors in 1998. The percent assigned to telephone was based on the experience of Sprint related to construction sharing with other entities, taking into account the presence of others as well as the probability of coordination.

2.7. Plant Mix

Cable plant mix inputs consists of percentages of aerial, underground and buried cable placements within density groups. Separate inputs are developed for cables depending upon their type (copper or fiber), usage (distribution or feeder), or terrain (normal, soft rock, hard rock).

Plant mix is driven by many region specific factors. Some factors to be considered in selecting the type of outside facilities include maintenance cost considerations, potential service disruptions, and initial first cost considerations. These considerations apply to both feeder and distribution cables.

Maintenance cost considerations are evaluated for each type of cable facility before a cable type is selected. Acts of nature and acts caused by man become an important consideration when evaluating potential maintenance costs. Aerial cables are subjected to many types of damage including fallen trees or limbs, animals, high winds, automobile accidents and lightning. Underground or buried cables are subject to rapid deterioration caused by an area having a high water table.

Service disruptions differ from maintenance considerations. In the case of buried cable or underground cables, a common example of this would be a cable cut by contractors digging or trenching without having existing cable locations identified. This damage usually results in a temporary loss of service for customers served by the cable

The cost to build the job without considering the future costs or benefits is defined as the initial first cost. Although an important consideration because it impacts today's money, initial first costs are not the only consideration. The evaluation of the remaining considerations may indicate a low initial first cost but excessive future costs due to future excessive maintenance costs. For example the initial first cost of an aerial cable would be far less expensive compared to an underground cable requiring the construction of a conduit. However, if facilities were placed in a high growth area, underground facilities would probably be more conducive to continual reinforcement.

Since the factors of future maintenance, initial first costs, and potential service disruptions from either nature or man have already been considered by the engineers, actual plant mix provides the best starting point in determining a forward looking network

The source of data for plant mix calculations is the Sprint's outside plant record system. Sheath miles by type and size of cable are extracted from the records by wire center for Sprint's service territory in Florida. The sheath miles are then sorted by cable size. Copper cables of 400 pairs and greater are considered feeder cables. Copper cables of less than 400 pairs are considered distribution cables. All fiber cables are considered feeder.

After the cables are divided between feeder and distribution the percentages of type are derived for each wire center. The total sheath miles for all copper feeder cable equals total aerial sheath miles plus total buried sheath miles plus total underground sheath miles. Each structure type is totaled and divided by total sheath miles to calculate the percentage of each structure type. The end result is feeder structure by type for the three structure types for a particular wire center. This methodology is completed for all wire centers in Sprint's Florida serving territory. The same methodology is used for fiber feeder and distribution cables.

Once the percentage type of feeder and distribution cables are calculated, the percentages are weighted by the number of access lines in each density zone. The weighting is completed with the grid information from BCPM. Each wire center has a number of grids containing the number of lines being served and the density zone in that grid. Lines of a grid are multiplied by the percentage of each wire type for the appropriate wire center. The weightings are done for each grid. The weighted lines are then summed by density zone.

The line weightings for all structure types are then smoothed using regression analysis. The smoothed results from aerial, buried and underground are totaled to give a representative total line count per density zone. For each density zone, the smoothed weighted lines from structure type is divided by the representative total lines which yields a percentage for each structure type. The calculations can be seen in Workpaper 8 and are summarized in Table 2.13 below.

Table 2.13 Plant Mix

	Copper Distribution			Copper Feeder			Fiber		
Density	Aerial	Undgrd	Buried	Aerial	Undgrd	Buried	Aerial	Undgrd	Buried
0	5.4%	0.0%	94.6%	2.6%	14.8%	82.6%	2.0%	11.0%	87.0%
6	7.8%	0.0%	92.2%	2.8%	15.2%	82.0%	2.2%	18.2%	79.6%
101	9.8%	0.0%	90.2%	2.9%	15.6%	81.5%	2.4%	24.1%	73.5%
201	11.4%	0.0%	88.6%	3.1%	15.9%	81.0%	2.5%	29.0%	68.5%
651	12.8%	0.0%	87.2%	3.2%	16.1%	80.7%	2.7%	33.1%	64.2%
851	14.0%	0.0%	86.0%	3.3%	16.3%	80.4%	2.8%	36.6%	60.6%
2551	15.1%	0.0%	84.9%	3.4%	16.5%	80.1%	2.9%	39.7%	57.4%
5001	16.0%	0.0%	84.0%	3.5%	16.6%	79.9%	2.9%	42.3%	54.8%
10001	16.8%	0.0%	83.2%	3.5%	16.8%	79.7%	3.0%	44.6%	52.4%

2.8. Density Cable Sizing Factor

Table 2.14 Density Cable Sizing Table

Density	Feeder	Distribution
0	54.7%	100%
6	55.0%	100%
101	55.2%	100%
201	55.5%	100%
651	55.7%	100%
851	56.0%	100%
2551	56.3%	100%
5001	56.5%	100%
10001	56.8%	100%

2.8.1. Definition

Cable sizing factors reflect the percentage of available network capacity utilized by feeder and distribution cables. Proper cable sizing allows uninterrupted provision of new service and maintenance between cable additions. Cables are engineered to be filled to capacity (less pairs for maintenance) in 3 to 5 years based on a forecast of anticipated demand. This means that cables are sized larger than initially needed to fill service requests until the next cable addition.

2.8.2. Methodology

Care must be used in selecting cable capacity to avoid under sizing, which results in unnecessary rework or over sizing which results in capacity never being used.

There are additional factors to consider in cable sizing. One is the lag time required to engineer and construct a new cable. Cable additions are added far enough in advance of cable pair exhaustion, to enable the continued provision of new service.

Another factor to consider is the standard pair sizes of cables. Cables are available in a wide range of pair complements, however cables of larger pair sizes increase by 600 pair increments (2400, 3000, 3600, 4200). This means that if the forecasted demand for a new cable called for 3500 pairs, a 3600 pair cable would be placed. This limitation caused by standard cable sizes will increase unused capacity.

Cable sizing factors are developed separately for feeder and distribution cables. Feeder fill factors are developed from company specific data by wire center. Feeder fill factors are calculated by taking feeder pairs in service and dividing by feeder pairs available for each wire center.

The feeder fill for a wire center is then weighted by density zone. In BCPM, each grid contains a number of access lines and each grid is classified by density zone. All grids in each wire center are multiplied by the percentage of feeder cable fill for the appropriate wire center, to develop a weighted fill. The weightings are summed by density zone to develop a weighted feeder fill percentage by density zone. The weighted feeder fill percentages are then smoothed using regression analysis to develop a feeder fill percentage by density zone. An average overall feeder fill percentage is developed as well.

To calculate the feeder pairs required for each grid, the following formula is used:

total pairs served in the grid / feeder fill

This number is then grossed up to the next cable size to determine what size cable would be placed. Dividing the standard cable size into working pairs served in the grid results in the effective fill.

The effective fill numbers are summarized by density group, and compared to the Sprint's actual feeder fill. The result of this first comparison always results in an effective feeder fill being less than the actual feeder fill and therefore must be adjusted so that the effective feeder fill is as close as possible to Sprint's actual feeder fill in Florida.

Recognizing that BCPM will build a cable network reflecting the actual effective fill one additional calculation must be made to increase the effective fill by density group to equal the actual fill. This is completed by increasing the feeder fill input until the effective fill percentage equals the actual fill factor. This is accomplished by increasing the feeder fill percentages equally and recalculating the effective fill, until the total feeder fill approximately matches the actual overall feeder fill. See Workpaper 9 for a comparison of Sprint's actual fill factor to the effective fill calculated in BCPM.

Distribution cables are sized to allow for 2 pairs per housing unit (see Miscellaneous Inputs, Cable and Wire Inputs). Since the model builds 2 lines per housing unit, the fill factor is set to 100% for distribution cables as there is maintenance and growth capacity built into the model.

2.9. Miscellaneous Inputs

2.9.1. Pairs per Housing Unit

Table 2.15

Variable	Value
PairsPerHousingUnit	2

This input is used in the calculation to determine distribution cable sizes. Sprint's current engineering guideline is to build 2 lines per residential housing unit. This is based upon the increasing demand of second phone lines that Sprint has experienced in its serving territories. The 2 lines per housing unit also allow for maintenance pairs.

2.9.2. Pairs per Business Location

Table 2.16

Variable	Value
PairsPerBusinessLocation	6

This input is used in the calculation to determine distribution cable sizes. Sprint's current engineering guidelines is to build 6 lines per business location. As noted in the model methodology guidelines, if the actual business line count is greater than the input multiplied business units then the actual line count will be used. The 6 lines per business unit represents the current engineering guidelines being used by Sprint for provisioning lines to business areas.

2.9.3. Maximum Size Feeder Distribution Interface

Table 2.17

Variable	Value
MaxSizeFDI	4200

This input of 4,200 pairs is used to determine the largest FDI used in the model as some smaller companies may not keep larger FDIs in inventory. Sprint uses the largest size FDI that BCPM models. FDI sizes and costs can be found in section 2.2.

2.9.4. Maximum Fiber Size

Table 2.18

Variable	Value
MaxFiberSize	288

This input of 288 fiber strands is used to determine the largest fiber cable size used in the model as some smaller companies may not keep larger fiber cables in inventory. Sprint uses the largest fiber cable that BCPM models. Fiber sizes and costs can be found in section 2.1.

2.9.5. Maximum Feeder Size

Table 2.19

Variable	Value
MaxFeederSize	4,200

This input of 4,200 pairs of copper feeder cable is used to determine the largest copper feeder cable size used in the model as some smaller companies may not keep larger copper feeder cables in inventory. Sprint uses the largest copper feeder cable that BCPM models. Feeder cable sizes and costs can be found in section 2.1.

2.9.6. Maximum Distribution Size

Table 2.20

Variable	Value
MaxDistSize	3,600

This input of 3,600 pairs of copper distribution cable is used to determine the largest copper distribution cable size used in the model as some smaller companies may not keep larger copper distribution cables in inventory. Sprint uses the largest copper distribution cable that BCPM models. Distribution cable sizes and costs can be found in section 2.1.

2.9.7. Copper Maximum Distribution

Table 2.21

Variable	Value
CprMaxDistr	12,000

The 12,000 feet input is used to determine the size of a Customer Service Area (CSA). The maximum length of copper cable being used from either a Central Office or a DLC determines the size of a CSA. Sprint has set the input at 12,000 feet based upon Bellcore guidelines to provide conventional voice grade message service, and some 2-wire, locally switched voice-grade special services.

The maximum loop length is a CSA is 12kft for 19-, 22-, or 24-gauge cables and 9kft for 26 gauge cables....All CSA loops must be unloaded and should not consist of more than two gauges of cable.[1]

2.9.8. Fiber Cable Discount

Table 2.22

Variable	Value
FiberCableDiscount	0.00%

This input is used in concert with the fiber cable costs and represents any additional discounts that a company may receive. Sprint uses company specific fiber cable costs and thus sets this input to 0%.

2.9.9. Copper Cable Discount

Table 2.23

Variable	Value
CopperCableDiscount	0.00%

This input is used in concert with the copper cable costs and represents any additional discounts that a company may receive. Sprint uses company specific copper cable costs and thus sets this input to 0%.

2.9.10. Investment Loop Cap

Table 2.24

Variable	Value
InvLoopCap	10,000

[1] *Bellcore Notes on the Networks, SR-2275, Issue 3, December 1997, Section 12.1.4 page 12-5.*

The investment loop cap is used to limit the investment costs of loops. Sprint uses a loop cap of 10,000. In other words if a loop costs 12,000 only 10,000 of that cost would be used.

2.9.11. Break Point

Table 2.25

Variable	Value
BreakPoint	12,000

This input is similar to Copper Maximum Distribution which does not allow for any copper loops to be in excess of 12,000 feet. This distance is based upon Bellcore standards. Please see documentation for Copper Maximum Distribution above.

2.9.12. Critical Water Depth

Table 2.26

Variable	Value
CriticalWaterDepth	3

When the water table depth of a effective grid cell is less than the critical water depth additional costs will required to build the structure. These additional costs are associated with the cost of removing water from a construction area. Sprint has set this input to three feet which is equal to the depth at which fiber cable is placed.

2.9.13. Water Factor

Table 2.26

Variable	Value
WaterFactor	30.00%

This inputs represents the additional costs associated with the cost of removing water from a construction project. Sprint has set this factor to 30% based upon engineering judgment.

2.9.14. Minimum Slope Trigger

Table 2.27

Variable	Value
MinSlopeTrigger	12

Slope triggers are set at the present slope when facilities must be placed along the contours of the hillside rather than in a point-to-point placement. This is one of three different slope triggers used within the model to adjust distance. The minimum slope trigger is set at 12 degrees. When this average is exceeded the distance is adjusted by the minimum slope factor (Reference Section 2.9). For example, if the average terrain within a given grid is 12 degrees or less, no additional adjustment for cable distance, and hence cost, is required.

The slope information is taken from the State Soil Geography (STATSGO) data based produced by the United States Department of Agriculture.

Since more cable is required when winding along contours of hillsides rather than cable placement in straight flat terrain, this input allows for the additional distance that facilities will require when traveling along this higher sloped terrain. This is comparable to a road climbing a mountain. If a hill is too steep then switchbacks are required which adds to the total distance traveled.

2.9.15. Minimum Slope Factor

Table 2.28

Variable	Value
MinSlopeFactor	1.10

Slope triggers are set at the present slope when facilities must be placed along the contours of the hillside rather than in a point-to-point placement. Slope factors are the multipliers used to add the additional distance that the facilities must travel as they wind their way across the higher slope terrain. This factor comes in to play when ONLY the minimum slope trigger is exceeded (section 2.9.16), thereby, adjusting the cable distance using this minimum slope factor.

Since more cable is required when winding along contours of hillsides rather than cable placement in straight flat terrain, this input allows for the additional distance that facilities will require when traveling along this higher sloped terrain. Thereby, triggering the Model to compensate cables and structures cost.

2.9.16. Maximum Slope Trigger

Table 2.29

Variable	Value
MaxSlopeTrigger	30

Slope triggers are set at the present slope when facilities must be placed along the contours of the hillside rather than in a point-to-point placement. This is one of three different slope triggers used within the model to adjust distance. The maximum slope trigger is set at 30 degrees. When this maximum is exceeded the distance is adjusted by the maximum slope factor. For example, if the maximum terrain within a given grid is 30 degree or less, no additional adjustment for cable distance, and hence cost, is required.

The slope information is taken from the State Soil Geography (STATSGO) data based produced by the United States Department of Agriculture.

Since more cable is required when winding along contours of hillsides rather than cable placement in straight flat terrain, this input allows for the additional distance that facilities will require when traveling along this higher sloped terrain. Thereby, triggering the Model to compensate cables and structures cost

2.9.17. Maximum Slope Factor

Table 2.30

Variable	Value
MaxSlopeFactor	1.05

This value is the distance multiplier when maximum slope causes cables to be extended to "switchback" on a slope or go around large sloping areas.

Since more cable is required when winding along contours or around hillsides rather than cable placement in straight flat terrain, this input allows for the additional distance that facilities will require when traveling along this higher sloped terrain. Thereby, triggering the Model to compensate cables and structures cost.

2.9.18. Combination Slope Factor

Table 2.31

Variable	Value
CombSlopeFactor	1.20

Slope triggers are set at the present slope when facilities must be placed along the contours of the hillside rather than in a point-to-point placement. Slope factors are the multipliers used to add the additional distance that the facilities must travel as they wind their way across the higher slope terrain. This factor is a secondary change and comes in to play when both the minimum and maximum slope triggers are exceeded the distance is adjusted by the combined slope factor. NOTE: The minimum slope factor of 1.10 and maximum slope factors of 1.05 will never add to the combined slope factor of 1.20. Reason being; if either one of the minimum or maximum factors, based on the predominate slope in the given terrain is reached, neither slope factor is used and the combination slope factor is deployed.

These inputs are obtained from Outside Plant planning or engineering experts for the company. Since more cable is required when winding along contours of hillsides rather than cable placement in straight flat terrain, this input allows for the additional distance that facilities will require when traveling along this higher sloped terrain. Thereby, triggering the Model to compensate cable and structure costs.

2.9.19. Business Premise

Table 2.32

Variable	Value
BusinessPrem	10

This input represents the average number of actual lines per business premise when constructing the distribution network. It works in the same manner as the number of lines by household. The one exception is when there are more actual business lines than the calculated business lines.

The input is obtained from Outside Plant planning and engineering experts for Sprint.

2.9.20. Normal Underground/Buried Cover (Copper)

Table 2.33

Variable	Value
NormalUGBuriedCover	24.00

This input represents the depth at which copper cable is to be buried. Sprint uses an input of 24 inches. This input is based upon engineering guidelines set by AT&T on the table labeled *Recommended Depths For Placing PIC Cable*[2]. The table indicates that copper feeder and distribution cables should be covered by a minimum of 24 inches.

2.9.21. Normal Fiber Cover

Table 2.34

Variable	Value
NormalFiberCover	36.00

This input represents the depth at which fiber cable is to be buried. Sprint uses an input of 36 inches. This input is based upon engineering guidelines set by AT&T on the table labeled *Recommended Depths For Placing PIC Cable*[3]. The table indicates that fiber cable should be covered by a minimum of 36 inches.

2.9.22. Fill Factors for Electronics

Table 2.35

Variable	Value
ElectronicFill	85%

[2] AT&T Network Systems Customer Education and Training, *Outside Plant Engineering Handbook*, AT&T, 1994, Page 9-12.
[3] AT&T Network Systems Customer Education and Training, *Outside Plant Engineering Handbook*, AT&T, 1994, Page 9-12.

This input represents the amount of fill required in DLCs. Sprint uses an input of 85%. At 85% engineering starts planning for reinforcement of the DLC

2.9.23. Small DLC Electronics Discount

Table 2.36

Variable	Value
SmallDLCDiscount	0%

This input is used in concert with the DLC Investments and represents any additional discounts that a company may receive. Sprint uses company specific DLC costs and thus sets this input to 0%.

2.9.24. Large DLC Electronics Discount

Table 2.37

Variable	Value
LargeDLCDiscount	0%

This input is used in concert with the DLC Investments and represents any additional discounts that a company may receive. Sprint uses company specific DLC costs and thus sets this input to 0%.

2.9.25. Maximum Central Office Terminal DLC-L Size

Table 2.38

Variable	Value
MaxCOTDLCL	2,016

This represents the largest Central Office terminal that serves a Large DLC. After this point an additional terminal would need to be added. This input is based upon the industry standard.

2.9.26. Maximum Central Office Terminal DLC-S Size

Table 2.39

Variable	Value
MaxCOTDLCS	240

This represents the largest Central Office terminal that serves a Small DLC. After this point a large DLC terminal would need to be added. This input is based upon the industry standard.

3. Switching

3.1. Introduction

The Sprint TELRIC UNE Model is an Excel spreadsheet model. All inputs and calculations are readily observable. The model consists of nine individual modules. A brief description of each module follows.

3.2. Module Descriptions

Inputs (INP) – This module contains all of the inputs required to run any of the following modules.
Other Direct and Common Costs (ODC) – This module assigns other direct expenses to each unbundled network element, calculates a single common cost factor applicable to all unbundled network elements.
Annual Charge Factor (ACF) – This module calculates an annual charge factor for each type of plant. This factor includes the other direct expenses calculated in the ODC module.
Switching (Switch) – This module calculates the cost and rate for unbundled end office switching, end office termination for reciprocal compensation, and tandem switching (unbundled and reciprocal compensation).
Transport (Trans) – This module calculates the cost of common transport for both unbundled transport and reciprocal compensation.
Loop (Loop) – This module calculates the cost of the loop for an unbundled loop.
NID (Network Interface Device) – This module calculates the cost of the Network Interface Device at the customer location for an unbundled NID.
SS7 – This module calculates the cost of SS7 for unbundled SS7.
Operator/DA (OpDA) – This module calculates the cost of Operator/DA services for unbundled Operator/DA.

Only the switching worksheet of the Input Module contains information necessary to run the Switching Module. The first page (the top of the worksheet) contains area-wide inputs, which apply to all offices. Some of this information is vendor proprietary. The following pages (the remainder of the worksheet) contain office-specific information, such as study-derived traffic data, and SCIS-derived investment data. Sprint identifies its host/remotes based on their actual location in the network and employs usage characteristics specific to each wire center in its calculation of costs.

3.3. SPRINT TELRIC UNE MODEL

3.3.1. Switching Module: End-Office Terminating Switching

The switching module takes total investment calculated from the Bellcore SCIS model, and combines it with actual usage information to derive TELRIC cost results for each host office complex.

The Switching module consists of eighteen worksheets. Note that the process is repeated for each individual host office complex. Once the model has completed its calculations for each office, a series of summary reports are produced. However, the data associated with the last office remains in the model itself, which allows the analyst to more easily review the calculations. The TELRIC methodology for switching consists of five basic steps. The five worksheets Variables, Processor, Expenses, SetUp, and MOU, show the calculations for one switch. This process is repeated for each switch studied.

The first step is to determine the total forward-looking switching investment and demand for each central office switch. Forward-looking investment is determined using the SCIS model. Individual switches are modeled, assuming a minimum processor capability, e.g., Supernode 60 is the minimum processor size currently supported by Nortel. Although earlier vintage processors may be currently in use, they do not represent forward-looking technology as required by TELRIC standards.

This investment is segregated into six investment categories, which are:

1. Processor – the minimum investment required to provide switching, regardless of usage. It is composed primarily of the central processor and memory.
2. Fixed Line – the investment required to terminate the local loop in the central office. It is composed primarily of a line card, the main distribution frame, and protector.
3. Line Usage – the investment associated with usage sensitive line-side switching. It is composed primarily of the line-concentrating module, DS-30A links, line group controller, DS-30 links, and the network module.
4. Trunk Usage – the investment with usage sensitive trunk-side switching. It is composed primarily of digital trunk controllers, DS1 links, and the network module.
5. Umbilical Usage – the usage sensitive investment in host-remote links.
6. SS7 Link – investment associated with the SSP (Service Signaling Point) located in the central office.

This information is summarized on the Variables worksheet. The SCIS model considers only the hardware investment in the central office. One-time software investment required to provide basic switching functionality must also be included. The vendor provides this proprietary information to Sprint. Demand data for MOU and call set-ups is derived from traffic studies. This information is also shown on the Variables worksheet.

The second step is to determine the number of processor milliseconds required to process each type of call. This information, shown on the Processor worksheet, is proprietary to the vendor.

The third step is to derive monthly expense per investment category by multiplying the investment by the appropriate forward-looking annual charge factor. This is shown on the Expenses worksheet.

The fourth step is to calculate the cost per call set-up per call type. Determining the total processor cost per call type, and dividing by the appropriate MOU does this. The result is a processor cost per MOU for both the line-side and trunk-side of the central office. This calculation is shown on the Set-Up worksheet.

The fifth step is to calculate the cost per MOU per call type. This is done by determining the total CCS (Centum Call Seconds) investment by call type, and dividing by the appropriate MOU (actual recent switch-experienced MOU demand). The result is a cost per CCS for both the line-side and trunk-side of the central office. This calculation is shown on the MOU worksheet.

The TELRIC results for each central office are summarized in the Cost Summary worksheet.

The TELRIC switching results are segregated into two distinct cost zones:

1. Host offices; and
2. Remote offices outside of the host office's exchange.

Switch costs are provided on an exchange basis. Each exchange reflects the cost characteristics of the switch providing service to that exchange. Host switches generally require less investment per line than remotes due to economies of scale. In addition, there are other costs associated with remote switches, including processor, power, and umbilical investment. Thus these two cost zones reflect the cost differences between exchanges served by a host, and exchanges served solely by a remote.

The Call Termination worksheet shows the calculation for one particular switch. It is equal to the processor set-up cost plus the CCS cost associated with the line, trunk, and host-remote umbilical. The TELRIC results for each central office are summarized in the Call Termination Summary worksheet. Sprint calculated a single weighted average cost of end office call termination for its entire service area as can be seen at the top of the Call Termination Summary worksheet. The common cost factor is added consistent with TELRIC costing principles.

3.3.2. Switching Module: Tandem Switching

The methodology to calculate tandem switching costs is the same as for end-office terminating switching as discussed above.

The Tandem Switching worksheet shows the calculation for one particular switch. It is equal to the processor set-up cost, plus two trunk CCS costs, one for incoming and the second for outgoing functions of the tandem switch.

Sprint calculated a single weighted average rate per MOU for its entire service as shown on the Tandem Switching Summary worksheet. The common cost factor is added consistent with TELRIC costing principles.

For a more comprehensive discussion of the Sprint TELRIC UNE Model, see the detailed description included elsewhere in this filing.

3.3.3. SCISMO (Telcordia)

A more comprehensive discussion of switching and SCISMO follows.

Some of the primary network costs and rate elements supported by central office switches include:

- Line Port
- Line Usage
- Trunk Usage
- Local Tandem Switching (Part of Common Transport)
- Custom Calling, Centrex, and CLASS Features
- Signaling (Signaling System 7)

The Switching Cost Information System (SCIS) developed by Telcordia (formerly Bellcore) is the costing tool used for calculation of investments which are input items to the switching module.

Major wire center inputs used to profile the offices are as follows:

SCIS/MO Inputs

Office characteristics are required by the Office Study Module to:

- Construct the office or offices being studied and
- Properly apportion the investment terms of a specific office or group of offices.

In addition to the office characteristics, users are required to enter study-related data.

The following input areas must be data-filled to build the files required by SCIS/MO.

- Study/System Parameters
- Model Office – Host Data (for each host)
  - General
  - CPU (Processor Utilization)-Getting Started Investment
  - Lines
  - Trunks
  - LPP (Link Peripheral Processor)
  - AMA (Automatic Message Accounting)
- Model Office – SS7
  - Used when the standalone/host office has Signaling System 7 (SS7) capability

- Model Office Host Integrated Services Digital Network (ISDN) & TR303 Data
  - Basic Rate Interface (BRI) & Plain Old Telephone Service (POTS) (Non-Digital Loop Carrier (DLC))
  - Primary Rate Interface (PRI)
  - Packet Trunking
  - BRI/POTS on Integrated Digital Loop Carrier (IDLC)
  - TR-303
- Model Office – Remote Data (for each remote)
  - General/Umbilical
  - CPU-Getting Started Investment
  - Lines
  - Trunks
- Model Office – Remote ISDN Data (only when the remote is ISDN equipped)
  - BRI & POTS (Non-DLC)

Investment outputs produced by SCISMO for host offices include the following. References to 5ESS relate to the Lucent 5ESS switch; references to DMS-100 relate to the Nortel DMS-100F switch. No attempt has been made to document the Nortel DMS-10 switch, however, it is closely related to the DMS-100 in functionality except that it does not provide tandem trunking services.

1. <u>Getting Started Investment</u>
   The fixed investment of establishing a new Host/Standalone office, including the initial processor community along with spares, breakage, maintenance and test, and miscellaneous equipment. This investment is independent of the carried traffic or the line/trunk size of the switching system. If digital lines are deployed, regardless of type, there is a Getting Started Investment increment. In addition, there is a Getting Started Investment increment for each type of digital line deployed. When Remotes are served, there is a Getting Started Investment increment for each Remote.
2. <u>Switching Module Investment Per EPHC (Equivalent POTS Half Calls (5ESS only)</u>
   Represents the capacity unit investment of Switching Module equipment based on the realtime capacity of the Switching Module processor.
3. <u>Switching Module-2000 Investment Per EPHC (5ESS only)</u>
   Represents the capacity unit investment of Switching Module 2000 (SM-2000) equipment based on the realtime capacity of the Switching Module-2000 processor.
4. <u>Line Termination Investment</u>
   This investment category reflects the cost of serving lines in an office. The investment components of the Line Termination Investment include the following primary elements:

- **Analog**
  - Distribution/Protection Frame (Part A) (DMS100, 5ESS)
  - Non-traffic Sensitive part of line terminations (Part A) (DMS100, 5ESS)
  - Line Concentrating Module (LCM) (traffic sensitive) (Part B) (DMS100)
  - Line Group Controller (LGC) (traffic sensitive) (Part B)(DMS100)
  - Network (traffic sensitive) (Part B)(DMS100)
- **Digital**
  - Distribution/Protection Frame (Part A) (DMS100, 5ESS)
  - DS-1 Termination Port (SLC-96 Lines) (not traffic sensitive) (DMS100)
  - Subscriber Carrier Modules (SCM) (traffic sensitive) (Part B) (DMS100)
  - Network (traffic sensitive) (Part B) (DMS100, 5ESS)

Minimum Investment per Line (Parts A and C)

Part A. Working Line Termination Investment

Recovers the investment associated with the physical appearance of a line on the switch. The Working Line Investment is the weighted average of the cost to terminate an analog line and the cost to terminate a digital line.

Part C. Excess CCS Capacity Investment

Recovers the cost of usage capacity purchased but not recovered by Investment per Line CCS in actual usage of the switching system. For DMS100, it represents the investment of the unused LCM, LGC, and Network CCS for analog lines and SCM and Network CCS for digital lines not addressed by the Usage Investment component. Though traffic-sensitive in nature, this part cannot be recovered as usage and is assigned to all lines in the office equally.

For 5ESS, Excess Switching Module Processor (EPHC) capacity on a Switching Module and/or Switching Module-2000 not recovered by EPHC investment is recovered here.

Part B. Investment per Line CCS (O+I)

Recovers the usage investment per line CCS. This is based on subscriber actual use of traffic sensitive investment components in the office being studied.

5. Investment per Call Type

Reflects the investment associated with the service circuits required to process each type of call. All calls processed by the switch require two of the following four call types: originating, incoming, terminating, outgoing. For example, an originating call must either terminate locally (intraoffice) or be outgoing to a distant office (interoffice).

Investment per Incoming Call (DMS100)

Represents the investment associated with the Multi-Frequency (MF) receivers required to receive the digits sent to a DMS-100F office via analog interoffice trunk facilities for an incoming call.

Investment per Terminating Call (5ESS)

Represents the investment associated with the High Level Service Circuit (HLSC) used to provide power ringing to the terminating party on completed calls and to perform False Cross and Ground, Power Cross and Continuity test for calls analog lines.

Investment per Tandem Incoming Call (DMS100)

Represents the investment associated with the Multi-Frequency (MF) receivers required to receive the digits sent to a DMS-100/200 or DMS-200 office via analog interoffice trunk facilities for an incoming call.

6. Investment per Trunk CCS

   Investments associated with the local trunk usage for interoffice calls are recovered in the Trunk CCS category, which represents the weighting of the analog and digital trunk investments. The DMS-100F provides an interface for trunk types: analog trunks, digital trunks (56 KBPS), and DS0 CCC digital trunks (64 KBPS). The 5ESS weights in additional Excess Switching Module Processor (EPHC) Capacity Adjustment for analog and digital trunks.

7. Investment per Tandem Trunk CCS

   This category reflects the cost associated with tandem trunk usage (analog, digital, and DS0 CCC digital) for interoffice calls. A weighted average is determined from the analog, digital, and DS0 CCC digital trunk mix of the office(s) being studied.

8. Investment per SS7 Signaling Octet

   To properly allocate the investment associated with SS7 signaling capability at the End Office or Tandem, a constant, or levelized, investment per signaling octet has been developed. This signaling resource investment coefficient has been developed in a manner consistent with SCIS methodology and can be used to determine the signaling investment associated with those services and capabilities that use the SS7 signaling network. SCIS calculates a levelized investment per signaling octet based on all SS7 investment outlays and any additional signaling investment.

9. Switching Module Investment Per EPHC (O + I Umbilical) (5ESS only)
10. Umbilical Trunk Investment Per CCS (O + I) (5ESS only)

    Used to calculate the Remote results displayed on the Output Report for Remotes

11. Investment Per Intracluster CCS (5ESS only)
    Used to calculate the Remote results displayed on the Output Report for Remotes

Remote switches provide an economical and efficient method of increasing the serving area of an office. There are two types of remotes served by a DMS-100F.

- Remote Line Concentration Module (RLCM) (up to 639 subscribers capacity)
- Remote Switching Center (RSC-S) (up to 12780 analog lines can be interfaced)
  - Single
  - Dual

The 5ESS remotes provide switching capabilities to areas that cannot economically support a 5ESS switch. These remotes have the following characteristics:

- Provide the same set of service and features as the 5ESS Standalone/Host.
- The ability to transmit traffic and other administrative data to the Host office.
- The ability to switch calls that stay within the remote.
- Standalone capability to provide autonomous local switching if facilities at or between the Host office and the remote fails.
- Access to all operating Support Systems available to the Host office.
- Capabilities to terminate analog lines and SLC-96 carrier systems.
- Interoffice trunking.

There are three types of remotes served by a 5ESS switch:

- Remote Switch Modules (RSM) which are defined by the number of Collocated Switch Modules. Serves remote locations (1-104 miles). Single classic SM serves 5120 lines maximum. Standalone capability. Connects on T-1 umbilicals.
- Optical Remote Switching Modules (ORM) which are defined by the ORM Mileage Type. Serves remote locations (2-100 miles). Single classic SM serves 5120 lines maximum. Stand-alone capability. Connects to host by 2 NCT link umbilicals.
- SM-2000 Extended Module (EXM) Serves remote locations (up to 100 miles). Serves 27,520 lines maximum. Stand-alone capability. Connects to host by NCT link umbilicals.

Remote office investment categories are identified according to:

- Function
- Usage
- Units used in investment recovery
- Units to be used for feature algorithms

The Remote Model Office investment categories and sub-categories identified are as follows. The following detailed discussion applies to DMS-100 specifically with general application appropriate to 5ESS remote switches.

1. Getting Started Investment
   - When remotes are served from a host, there is a Getting Started Investment for each remote. 5ESS switch computations include additional investment for Switch Module EPHC and SM-2000 EPHC.
2. Line Termination Investment – reflects the cost of serving lines
   - The investment components of the Line Termination Investment include the following primary elements for RLCM and RSC-Ss.
     - RLCM:
       - Distribution/Protection Frame
         - analog line requires one termination
         - digital interface on T-1 requires two terminations
       - Line Card
         - one to terminate each individual wire pair
         - dedicated-not usage sensitive
       - Line Concentrating Module
         - provides drawers to mount 640 line cards, one of which is a test card and unassignable
         - connected to the host via 2- DS-1 links
         - blockage probability, therefore, this a usage-dependent component
     - RSC-S
       - Distribution/Protection Frame
         - analog line requires one termination
         - digital interface requires two terminations
       - Line Card
         - one to terminate each individual wire pair
         - dedicated-not usage sensitive
       - Line Concentrating Module for analog lines
         - served by a Remote Cluster Controller
         - connected via 2-6 speech links
         - blockage probability, therefore, this a usage-dependent component
       - DS-1 Termination Port for digital lines
       - Subscriber Carrier Modules (SCM) for digital lines
         - peripheral module that allows for the integration of Digital Loop Carrier Systems into a DMS-100F switch
         - connected to the RCC2 via speech links
         - line-side traffic terminates via DS-1 links
         - can interface with Lucent SLC-96 Modes I & II
       - Remote Cluster Controller (RCC2)

Minimum Investment per Line - reflects a weighted average of all analog and digital POTS lines in the office.

Part A - Working Line Termination Investment

Recovers the investment associated with the physical appearance of a line on the system. (NTS).

Part C - Excess CCS Capacity Investment

Recovers the usage capacity purchased but not recovered by Investment per Line CCS in the actual usage of the switching system. Though traffic-sensitive in nature, this part cannot be recovered as usage and is assigned to all lines in the office equally.

Part B - Investment per Line CCS (Originating or Terminating)

Recovers the usage investment per line CCS based on subscriber actual use of traffic sensitive components in the office being studied.

3. Investment Per Call Type
   - Investment Per Incoming Call – represents the investment associated with the MF receivers required in order that an incoming call may send digits to a DMS-100F office via **analog** interoffice trunk facilities.
     - RSC-S investment is zero since incoming calls are on digital trunks rather than analog trunks
     - The RLCM does not terminate trunks - this investment is not applicable.
4. Investment per Trunk CCS (Outgoing or Incoming)

   Reflects the cost associated with local trunk usage for interoffice calls - calculated for Single and Dual RSCs
   - Only digital trunks to Community Dial Offices (CDOs) and PBXs can be provisioned at the Remote Switching Center (RSC-S)
   - RLCMs do not terminate trunks
5. Investment per Umbilical Trunk CCS (Outgoing or Incoming)

   Represents the switch resources used to route traffic between a remote and a host entity.
   - The Average Investment per Umbilical Trunk CCS is based upon the number of umbilical T1 links from the remote to its hosting entity as well as the total ABSBH CCS umbilical traffic.
   - T-span umbilical links from an RSC-S or an RLCM can terminate in the host on an LGC or an LTC; RSC-Ss with trunking capability must be terminated by an LTC.

Features – Custom Calling Features, CLASS Features, and Centrex

Study output from SCIS/MO is incorporated into the calculation of the features within the filing. Output is used along with individual feature inputs to Switching Cost Information System/Intelligent Network (SCIS/IN) to produce feature investments.

4. Transport Cost Model

The Transport Cost Model inputs address cost of material (TransInputs), network rings (Trans_Rings), and extended service area routes (Trans_Routes).

4.1. TransInputs:

The TransInputs includes Material Costs, Annual Charge Factors, and Miscellaneous Factors. Material Costs and Miscellaneous Factors are inputs to the Transport Cost Model. The Annual Charge factors are calculated in the Annual Charge Factor Model.

4.1.1. Material Costs

Material Costs inputs include termination and mileage equipment costs. The Material input column represents the total dollar investment amount for each piece of equipment itemized in the equipment column. The values for fiber patch cord and fiber patch panel are expressed on a "per fiber" basis. The terminal equipment investments represent the investment for the entire shelf and common equipment. The related terminal card investments represent the cost per DS1 (for DS1 cards) or per DS3 (for DS3 and 3DS3 cards) The material investment amounts have been developed with the assistance of Sprint engineers familiar with SONET transmission. All investment amounts represent preferred-vendor costs for equipment configured for typical usage. Shipping, handling, and warehousing are state specific, and are included in the investment amount shown. (See Workpaper 11 and Workpaper 12.)

The Engineering/Installation Labor input column represents the total dollar amount of engineering and installation labor for each piece of equipment itemized in the equipment column. These were determined using engineering and installation hours for each piece of equipment as developed by Sprint Engineering as typical work durations and are considered appropriate for this cost study. State specific fully loaded labor rates were applied to the typical work durations.

The Sales Tax column is calculated using inputs discussed in the Miscellaneous Factors later in this section.

EF&I Investment per Unit is the sum of Material, Engineering/Installation Labor and Sales Tax.

Number of Units Required is an input of the number of each piece of equipment that is necessary for one termination.

DS1 System Capacity is the number of DS1s each piece of equipment is designed to accommodate.

Table 4.1

Material Costs:	Material	Engineering/ Installation Labor	Sales Tax	EF&I Investment per Unit	Number of Units Required	DS1 System Capacity
Termination Equipment						
Fiber Patch Cord (Per Fiber)	31.07	2.13	2.05	35.25	2.00	Varies
Fiber Patch Panel (Per Fiber)	17.32	14.39	1.14	32.85	2.00	Varies
Fiber Tip Cable (Per Fiber) OC48 ALL	31.07	2.13	2.05	35.25	4.00	2,688.00
Fiber Patch Panel (Per Fiber) OC48 ALL	17.32	14.39	1.14	35.25	4.00	2,688.00
SONET Terminal Shelf (OC3)	29,201.45	4,315.80	1,924.38	35,441.63	1.00	84.00
DS 3 Card	971.51	0.00	64.02	1,035.53	1.00	28.00
DS 1 Card	167.89	0.00	11.06	178.95	1.00	1.00
SONET Terminal Shelf (OC12)	38,338.94	5,956.09	2,526.54	46,821.56	1.00	336.00
OC3 Card	5,658.09	0.00	372.87	6,030.96	1.00	84.00
3 DS 3 Card (OC12)	563.29	0.00	37.12	600.41	1.00	84.00
SONET Terminal Shelf (OC48 Lucent)	86,936.77	7,121.35	5,729.13	99,787.25	1.00	1,344.00
O C 12 Card	9,618.53	0.00	633.86	10,252.39	1.00	336.00
O C 3 Card	7,150.33	0.00	471.21	7,621.54	1.00	84.00
3 D S 3 Card (OC48 LUC)	6,450.84	0.00	425.11	6,875.95	1.00	84.00
SONET Terminal Shelf (OC48 Alcatel)	118,400.17	8,544.82	7,802.57	134,747.56	1.00	2,688.00
O C 12 Card	9,006.75	0.00	593.54	9,600.29	1.00	336.00
O C 3 Card	5,658.09	0.00	372.87	6,030.96	1.00	84.00
3 D S 3 Card (OC48 ALL)	6,466.39	0.00	426.14	6,892.53	1.00	84.00
DSX3 Cross Connect Shelf	191.53	1,035.76	12.62	1,239.91	1.00	448.00
DSX3 Cross Connect Card	243.14	0.00	16.02	259.16	1.00	28.00
DSX1 Cross Connect Jack Field	1,535.05	1,035.76	101.16	2,671.97	1.00	56.00
Channel Bank Shelf	5,286.45	1,553.64	348.38	7,188.47	1.00	2.00
Channel Bank Card	149.26	0.00	9.84	159.10	1.00	0.04
Mileage Equipment						
Aerial Fiber (per fiber)	100.32	0.00	6.61	106.93	2.00	-
Underground Fiber (per fiber)	106.66	0.00	7.03	113.69	2.00	-
Buried Fiber (per fiber)	118.80	0.00	7.83	126.63	2.00	-
Installation & Sheath (OC3, OC12, & OC48 Lucent)						
Aerial Fiber (per fiber)	807.84	4,303.20	53.24	5,164.28		
Underground Fiber (per fiber)	878.59	8,025.60	57.90	8,962.09		
Buried Fiber (per fiber)	660.00	2,376.00	43.49	3,079.49		
Installation & Sheath (OC48 Alcatel)						
Aerial Fiber (per fiber)	432.43	2,151.60	28.50	2,612.53		
Underground Fiber (per fiber)	529.58	4,012.80	34.90	4,577.28		
Buried Fiber (per fiber)	434.54	1,188.00	28.64	1,651.18		
Fiber Repeater (OC3)	26,282.46	2,157.50	1,732.01	30,171.97		
Fiber Repeater (OC12)	28,242.63	2,157.50	1,861.19	32,261.32		
Fiber Repeater (OC48LUC)	108,424.13	2,157.50	7,145.15	117,726.78		
Fiber Repeater (OC48ALL)	119,393.89	2,157.50	7,868.06	129,419.45		

4.1.1.1. Fiber Patch Cord

This is a piece of fiber cable used to connect the fiber from the SONET terminal to a patch panel. Patch cords are available in a variety of lengths. The cord modeled here was chosen by Network Planning as the median value among the lengths available and in common use. These costs are included in the monthly termination costs calculated by the model for all size SONET facilities.

4.1.1.2. Fiber Patch Panel

All fibers coming into, or out of, a SONET terminal are connected to a patch panel in the central office, from which they are connected to other central office equipment. Patch panels are available in a variety of sizes. The panel modeled here is a 72-fiber patch panel, chosen as being representative of the panels currently installed by Sprint for the majority of its operations. These costs are included in the monthly termination costs calculated by the model for all size SONET facilities.

4.1.1.3. SONET Terminal Shelf (OC3)

The OC3 terminal line item includes the shelf, bay, transmitters and receivers, spares, cabling, and all other common equipment used in a typical OC3 SONET terminal configuration. The costs associated with this item are included in the monthly termination costs for OC3 rings, and also the monthly termination costs calculated for OC12 and OC48 rings.

4.1.1.4. DS3 Card

The DS3 card is the card required to add or terminate traffic on an OC3 terminal at the DS3 bandwidth. The costs associated with this item are included in the monthly termination costs per DS3 for an OC3 terminal.

4.1.1.5. DS1 Card

The DS1 card is the card required to add or terminate traffic on an OC3 terminal at the DS1 bandwidth. The costs associated with this item are included in the monthly termination costs per DS1 for OC3 rings, and also the monthly termination costs per DS1 calculated for OC12 and OC48 rings.

4.1.1.6. SONET Terminal Shelf (OC12)

The OC12 terminal line item includes the shelf, bay, transmitters and receivers, spares, cabling, and all other common equipment used in a typical OC12 SONET terminal configuration. The costs associated with this item are included in the monthly termination costs for OC12 rings.

4.1.1.7. OC3 Card

The OC3 card is the card required to add or terminate traffic on an OC12 terminal at the OC3 bandwidth. This card allows OC3 signals to be sent to the OC3 terminal for termination at the DS1 level. Thus, costs associated with this card are included in DS1 termination costs for OC12 rings.

4.1.1.8. 3 DS3 Card

The 3 DS3 Card is required to add or terminate traffic on an OC12 terminal at the DS3 bandwidth. The costs associated with this card are included in DS3 termination costs for OC12 rings.

4.1.1.9. SONET Terminal Shelf (OC48 LUC)

The OC48 2-fiber terminal line item includes the shelf, bay, transmitters and receivers, spares, cabling, and all other common equipment used in a typical OC48 2-fiber SONET terminal configuration. The costs associated with this item are included in the monthly termination costs for the OC48 2-fiber.

4.1.1.10. OC12 Card

The OC12 card is the card required to add or terminate traffic on an OC48 2-fiber terminal at the OC12 bandwidth.

4.1.1.11. OC3 Card

The OC3 card is the card required to add or terminate traffic on an OC48 2-fiber terminal at the OC3 bandwidth. This card allows OC3 signals to be sent to the OC3 terminal for termination at the DS1 level. Costs associated with this card are included in DS1 termination costs for OC48 rings.

4.1.1.12. 3 DS3 Card

The 3DS3 card is required to add or terminate traffic on an OC48 2-fiber terminal at the DS3 bandwidth. The costs associated with this card are included in DS3 termination costs for OC48 rings.

4.1.1.13. SONET Terminal Shelf (OC48 ALL)

The OC48 4-fiber terminal line item includes the shelf, bay, transmitters and receivers, spares, cabling, and all other common equipment used in a typical OC48 4-fiber SONET terminal configuration. The costs associated with this item are included in the monthly termination costs for OC48 4-fiber rings.

4.1.1.14. OC12 Card

The OC12 card is the card required to add or terminate traffic on an OC48 4-fiber terminal at the OC12 bandwidth.

4.1.1.15. OC3 Card

The OC3 card is the card required to add or terminate traffic on an OC48 4-fiber terminal at the OC3 bandwidth. This card allows OC3 signals to be sent to the OC3 terminal for termination at the DS1 level. Thus, costs associated with this card are included in DS1 termination costs for OC48 4-fiber rings.

4.1.1.16. 3 DS3 Card

The 3DS3 card is required to add or terminate traffic on an OC48 4-fiber terminal at the DS3 bandwidth. The costs associated with this card are included in DS3 termination costs for OC48 rings.

4.1.1.17. DSX3 Cross Connect Shelf

The Cross Connect Shelf item comprises all the common equipment of a DSX3 cross connect. This is used for arranging, rearranging, and testing circuits at the DS3 level

4.1.1.18. DSX3 Cross Connect Card

The DSX3 card used in the DSX3 cross connect has a capacity of one DS3.

4.1.1.19. DSX1 Cross Connect Jack Field

The Cross Connect Jack Field is a cross connect used for arranging, rearranging, and testing circuits at the DS1 level. The entire cross connect used has a total capacity of 84 DS1s.

4.1.1.20. Channel Bank

The channel bank is required to convert digital signals to analog signals at the voice channel DS0 (64 kpbs) level. The channel bank line item consists of the common equipment for providing DS0 circuits.

4.1.1.21. Channel Bank Card

Each DS0 requires one card in the channel bank. The input cost is representative of a voice grade service.

4.1.1.22. Mileage Equipment: Aerial Fiber (per fiber)

This input is the cost of one mile of only aerial fiber (no sheath.) Using fiber costs developed for the Loop Cost Study, a regression analysis was used to determine the cost of only the fiber for aerial, underground, and buried cable. A 36 fiber cable was used for the analysis.

4.1.1.23. Mileage Equipment: Underground Fiber (per fiber)

This input is the cost of one mile of only underground fiber (no sheath.) Using fiber costs developed for the Loop Cost Study, a regression analysis was used to determine the cost of only the fiber for aerial, underground, and buried cable. A 36 fiber cable is used for the analysis.

4.1.1.24. Mileage Equipment: Buried Fiber (per fiber)

This input is the cost of one mile of only buried fiber (no sheath.) Using fiber costs developed for the Loop Cost Study, a regression analysis was used to determine the cost of only the fiber for aerial, underground, and buried cable. A 36 fiber cable was used for the analysis.

4.1.1.25. Installation & Sheath (OC3, OC12, & OC48 Lucent): Aerial Fiber (per fiber)

This input is the cost of one mile of sheath for aerial fiber. Using fiber costs developed for the Loop Cost Study, a regression analysis is used to determine the cost of only the fiber for aerial, underground, and buried cable. A 36 fiber cable is used for the analysis. The cost of fiber is subtracted from the cost of the total cable. The difference is converted to a per mile cost for a two fiber system which becomes the input for installation and sheath.

4.1.1.26. Installation & Sheath (OC3, OC12, &OC 48 Lucent): Underground Fiber (per fiber)

This input is the cost of one mile of sheath for aerial fiber. Using fiber costs developed for the Loop Cost Study, a regression analysis is used to determine the cost of only the fiber for aerial, underground, and buried cable. A 36 fiber cable is used for the analysis. The cost of fiber is subtracted from the cost of the total cable. The difference is converted to a per mile cost for a two fiber system which becomes the input for installation and sheath.

4.1.1.27. Installation & Sheath (OC3, OC12, & OC48 Lucent): Buried Fiber (per fiber)

This input is the cost of one mile of sheath for aerial fiber. Using fiber costs developed for the Loop Cost Study, a regression analysis is used to determine the cost of only the fiber for aerial, underground, and buried cable. A 36 fiber cable is used for the analysis. The cost of fiber is subtracted from the cost of the total cable. The difference is converted to a per mile cost for a four fiber system which becomes the input for installation and sheath.

4.1.1.28. Installation & Sheath (OC48 Alcatel): Aerial Fiber (per fiber)

This input is the cost of one mile of sheath for aerial fiber. Using fiber costs developed for the Loop Cost Study, a regression analysis is used to determine the cost of only the fiber for aerial, underground, and buried cable. A 36 fiber cable is used for the analysis. The cost of fiber is subtracted from the cost of the total cable. The difference is converted to a per mile cost for a four fiber system which becomes the input for installation and sheath.

4.1.1.29. Installation & Sheath (OC48 Alcatel): Underground Fiber (per fiber)

This input is the cost of one mile of sheath for aerial fiber. Using fiber costs developed for the Loop Cost Study, a regression analysis is used to determine the cost of only the fiber for aerial, underground, and buried cable. A 36 fiber cable is used for the analysis. The cost of fiber is subtracted from the cost of the total cable. The difference is converted to a per mile cost for a four fiber system which becomes the input for installation and sheath.

4.1.1.30. Installation & Sheath (OC48 Alcatel): Buried Fiber (per fiber)

This input is the cost of one mile of sheath for aerial fiber. Using fiber costs developed for the Loop Cost Study, a regression analysis is used to determine the cost of only the fiber for aerial, underground, and buried cable. A 36 fiber cable is used for the analysis. The cost of fiber is subtracted from the cost of the total cable. The difference is the input for sheath. The Engineering/Installation Labor is calculated using the labor costs from the Loop Cost Study to determine the cost for one mile of four fibers.

4.1.1.31. Fiber Repeater (OC3)

Optical regenerators are used when the distance between terminals exceeds recommended limits. The need for regenerators is a ring specific input in Trans_Rings.

4.1.1.32. Fiber Repeater (OC12)

Optical regenerators are used when the distance between terminals exceeds recommended limits. The need for regenerators is a ring specific input in Trans_Rings.

4.1.1.33. Fiber Repeater (OC48LUC)

Optical regenerators are used when the distance between terminals exceeds recommended limits. The need for regenerators is a ring specific input in Trans_Rings.

4.1.1.34. Fiber Repeater (OC48ALL)

Optical regenerators are used when the distance between terminals exceeds recommended limits. The need for regenerators is a ring specific input in Trans_Rings.

4.1.2. **Miscellaneous Factors**

Miscellaneous Factors are inputs to address a variety of factors and caps.

Table 4.2

Miscellaneous Factors:	
Fiber Pole Factor	0.2580
Fiber Conduit Factor	0.6404
Miscellaneous Equipment	
& Power Factor	0.0614
Fiber Mix:	
Aerial	0.0270
Underground	0.3310
Buried	0.6420

	100.00%
Sales Tax Rate	6.59%
Tax Material = 1, Material & Labor = 2	1
Maximum Utilization Level	
OC48 Luc	0.74700
OC48 All	0.81900
D S 1 Monthly MOU	216,000

[illegible]	
Invoke cap on costs by ring ?	N
[illegible]	
DS0	$ 15
DS1	1,000
DS3	15,000
OC3	20,000
OC12	50,000
[illegible]	
[illegible]	
Dedicated DS3 "ICB" Price Cap	10,000
Dedicated OC3 "ICB" Price Cap	1
Dedicated OC12 "ICB" Price Cap	1

4.1.2.1. Fiber Pole Factor
Fiber Conduit Factor

These two factors represent the dollar investment in poles for each dollar investment in aerial fiber, and the dollar investment in conduit for each dollar investment in underground cable. The values are calculated from year end, company specific investment data taken from PeopleSoft Asset Management Database

4.1.2.2. Miscellaneous Equipment & Power Factor

This value was calculated from ARMIS data for all Sprint companies and provided by Sprint – LTD – Revenues. It is the ratio of Power and Common Equipment expenses, to all other Central Office Expenses.

4.1.2.3. Fiber Mix: Aerial, Underground, Buried

These three inputs must sum to 100% and represent the relative percentage of interoffice fiber facilities that are aerial, underground and buried. A state specific Plant Mix study is performed for each state.

4.1.2.4. Sales Tax Rate

This input is the state specific sales tax. Application of the sales tax to material only or material and labor is also an input.

4.1.2.5. Maximum Utilization Level: OC48 Luc, OC48 All

These two inputs cap the maximum utilization level allowed for the OC48 terminals. These inputs represent the maximum utilization the terminals are cable of operating.

4.1.2.6. DS1 Monthly MOU

This input is the industry accepted total number of minutes of use a DS1 can handle for one month.

4.1.2.7. Invoke cap on cost per ring? (DS0, DS1, DS3, OC3, OC12)

These inputs allow the user to cap the total cost of each of listed size of terminal. These caps are not invoked for this study.

4.1.2.8. Dedicated DS3 "ICB" Price Cap
Dedicated OC3 "ICB" Price Cap
Dedicated OC12 "ICB" Price Cap

These inputs allow the user to cap the maximum price for each of the dedicated terminal sizes. Rings that exceed the cap price are priced as "Individual Case Basis" (ICB.)

4.2. Trans_Rings

The Trans_Rings is used to input details for each ring. Rings are designed using forward-looking plans and known traffic demand. The inputs include the following ring-specific information:

4.2.1. Route Name

Each ring is assigned a unique route name.

4.2.2. Ring Number

Each ring is given a unique ring number.

4.2.3. Segment Name

Each segment of each ring is entered.

4.2.4. Ring Type

The type of ring is identified as either "S" for a Self-healing Ring, or "F" for a folded ring.

4.2.5. Segment Beginning

This input identifies the type of terminal connection at the segment origination (DS1, SONET, Fiber, or Point of Connection (POC.)

4.2.6. Termination End

This input identifies the type of terminal connection at the segment termination (DS1, SONET, Fiber, or Point of Connection (POC.)

4.2.7. Segment Actual Miles

This input is the route miles for each segment in each ring.

4.2.8. Number of Repeaters

This input is the number of repeaters, or regenerators, used in the ring.

4.2.9. Terminal Size (OC3-48)

This input identifies the terminal size for each ring. The following four terminal sizes are used: OC3, OC12, OC 48L (2-fiber) and OC48A (4-fiber).

4.2.10. Number of DS1 Terminations

This input provides for the distinction between a complete ring and a point of connection to another LEC. The input for a complete ring is 2 DS1 terminations. A POC ring receives an input of 1 DS1 terminations. This input controls the number of terminations included in the cost of the ring.

4.2.11. Fiber Patch Cord (Per Fiber)

This is the utilization of the fiber patch cords for the ring. These 100% utilized.

4.2.12. Fiber Patch Panel (Per Fiber)

This is the utilization of the fiber patch panel for the ring. These 100% utilized.

4.2.13. SONET Terminal Shelf (OC3)

This is the utilization for each specific OC3 ring. Utilizations are calculated using known traffic levels and include an anticipated 20% growth. Each of the other rings (OC12, OC48 uni-directional and OC48 bi-directional) requires an OC3 SONET terminal shelf. The input for these rings is 85% utilization.

4.2.14. DS3 Card

This is the utilization of DS3 card for the OC3 rings. These 90% utilized.

4.2.15. DS1 Card

This is the utilization of DS1 card for the OC3 rings. These 90% utilized.

4.2.16. SONET Terminal Shelf (OC12)

This is the utilization for each specific OC12 ring. . Utilizations are calculated using known traffic levels and include an anticipated 20% growth.

4.2.17. OC3 Card

This is the utilization of OC3 card for the OC12 rings. These 100% utilized.

4.2.18. DS3 Card Set (OC12)

This is the utilization of DS3 Card Set for an OC12 ring. These 75% utilized.

4.2.19. SONET Terminal Shelf (OC48 LUC)

This is the utilization for each specific OC48 2-fiber ring. . Utilizations are calculated using known traffic levels and include an anticipated 20% growth.

4.2.20. OC12 Card

This is the utilization of OC12 card for the OC48 2-fiber rings. These 100% utilized.

4.2.21. OC3 Card

This is the utilization of OC3 card for the OC48 2-fiber rings. These 100% utilized.

4.2.22. 3 DS3 Card (OC48 LUC)

This is the utilization of DS3 Quad Card Set for an OC48 2-fiber ring. These 90% utilized.

4.2.23. SONET Terminal Shelf (OC48 ALL)

This is the utilization for each specific OC48 4-fiber ring. Utilizations are calculated using known traffic levels and include an anticipated 20% growth.

4.2.24. OC12 Card

This is the utilization of OC12 card for the OC48 4-fiber rings. These 100% utilized.

4.2.25. OC3 Card

This is the utilization of OC3 card for the OC48 4-fiber rings. These 100% utilized.

4.2.26. 3 DS3 Card (OC48 ALL)

This is the utilization of DS3 Quad Card Set for an OC48 4-fiber ring. These 90% utilized.

4.2.27. DSX3 Cross Connect Shelf

This is the utilization of the DSX3 Cross Connect Shelf for all rings. These are utilized at 90%.

4.2.28. DSX3 Cross Connect Card

This is the utilization of the DSX3 Cross Connect Card for all rings. These are utilized at 88%.

4.2.29. DSX1 Cross Connect Jack Field

This is the utilization of the DSX1 Cross Connect Jack Field for all rings. These are utilized at 90%.

4.2.30. Channel Bank Shelf

This is the utilization of the Channel Bank Shelf for all rings. These are utilized at 92%.

4.2.31. Channel Bank Card

This is the utilization of the Channel Bank Card for all rings. These are utilized at 100%.

4.2.32. Mileage Equipment:
Aerial Fiber (per fiber)
Underground Fiber (per fiber)
Buried Fiber (per fiber)

These inputs represent the utilization factors for the three different types of fiber. These factors are for the fiber only. Fibers are utilized at 75%.

4.2.33. Installation and Sheath (2-fiber):
Aerial Fiber (per fiber)
Underground Fiber (per fiber)
Buried Fiber (per fiber)

Installation and Sheath (4-fiber):
Aerial Fiber (per fiber)
Underground Fiber (per fiber)
Buried Fiber (per fiber)

These inputs represent the amount of sheath used for transport fibers and the prorated cost of installation. Fibers for various purposes are often placed in the same sheath. The factor represents a state specific sheath-sharing factor. The factor was calculated using historical data for the three different types of fiber. This sharing factor is 52%.

4.2.34. OC 3 Card (For Ded. OC3 Service)

This is the utilization of an OC3 Card used for dedicated service. The utilization is 100%.

4.3. **Trans_Routes**

This input page is used to input information regarding Extended Area Service (EAS) routes. Each EAS route listed in Sprint's Local Exchange Tariff for the state being studied is entered on this worksheet. Each ring used to carry traffic from the originating to the terminating exchange are entered. Rings used for an EAS route that connect to another LEC are entered in the Non-Sprint Node column. The EAS routes are used to calculate the Common Transport cost and to calculate route specific Dedicated Transport Prices.

5. Sprint Database Services UNE Cost Model

5.1. Introduction

The Sprint Database Services Cost Model is an Excel spreadsheet model. All inputs and calculations are readily observable.

Sprint provides SS7 database query services via two separate SCP platforms. Sprint LTD's intelligent network databases supports Line Information Database (LIDB), Calling Name (CNAM), and Toll Free Code (TFC) 800/888/877 services. These databases are presented assuming the use the forward-looking technology of a mated pair of Service Control Points (SCP) located in Johnson City and Bristol, Tennessee. The LNP database resides in a separate pair of SCPs equipped with AIN trigger capabilities. This two-platform structure is reflected in the model with separate input and calculation sections for the national LNP SCPs and IN SCPs.

The model also accounts for the cost of SS7 transport and switching form the Local STPs through the National STPs supporting the SCPs. The connectivity to the SCPs is accomplished through diverse SS7 network routing via a mated pair of STPs. Sprint's service areas are supported by regionally located mated-pairs of Local STPs, which are connected to the National STPs via numerous diversely routed links known as D-Links. The Local STPs are used to reduce long-haul circuit costs and provide additional network redundancy and survivability. . It is the cost of these elements that are reflected in the Query Switching and Transport component of the total cost per query.

5.2. Inputs and Methodology

Since LIDB, Toll Free and Calling Name database services are housed on the same pair of SCPs, a common per octet rate is developed for the use of these SCPs. Since LNP resides in a separate SCP within Sprint's National pair of STPs, a unique per octet rate is developed for the use of this SCP. An annual charge factor, which was calculated Sprint's TELRIC UNE Model, is applied to forward-looking SCP investment to arrive at annual costs. Octet demand is calculated by multiplying the engineered query demand for each query type by the average number of octets that make up the query. Both the calculated annual costs and demand are then discounted using Sprint's cost of capital. Dividing the discounted annual costs by the discounted octet demand arrives at the cost per octet. Next, annual expenses incurred specific to the type of service are identified and a per octet expense is calculated in the same manner as per octet SCP costs were calculated. The per-octet costs of query transport and switching from the serving Local STP to the National STP in Tennessee is then added. The sum of these three cost elements is then multiplied by the average number of octets that make up the query to arrive at a total cost per query. Finally, the Common Cost Factor is applied to arrive at the rate per query.

5.3. Toll-Free Query

As mentioned previously, the LIDB Database is modeled based on forward-looking SCP technology. Investment amounts are based on Sprint's Intelligent Network Operation's (INO) estimated hardware and software investments required to support the three services supported by these SCPs in future years. Similar to investments, the octet demand numbers are based upon INO's engineered query demands multiplied by the average number of octets per query.

5.3.1. IN SCP Investment (Line 12 – Input)
IN SCP investment is based upon forward-looking SCP technology and developed by Sprint's Intelligent Network Operations Group.

5.3.2. Annual Charge Factor (ACF) (Line 14 - Input)
The Annual Charge Factor (ACF) is developed by the Sprint's TELRIC UNE Cost Model.

5.3.3. Annual Cost (Line 16 - Calculation)
The Annual Cost is calculated by multiplying the IN SCP Investment by the ACF.

5.3.4. National SCP Maintenance/Services (Line 18 - Input)
Estimated expenses from the National Database Inputs worksheet.

5.3.5. Total IN SCP Cost (Line 20 – Calculation)
The sum of Annual Cost and National SCP Maintenance/Services.

5.3.6. Toll Free Database Query Octets (Line 23 – Input)
Octet quantity is calculated by multiplying query volumes by the average number octets per query.

5.3.7. LIDB Database Query Octets (Line 24 – Input)
Octet quantity is calculated by multiplying query volumes by the average number octets per query.

5.3.8. Calling Name Database Query Octets (Line 25 – Input)
Octet quantity is calculated by multiplying engineered query volumes by the average number octets per query.

5.3.9. Total Query Octets (Line 26 – Input)
This number is the sum of Toll Free, LIDB, and Calling Name Database Query Octets.

5.3.10. P/F Present Value Factor (Line 28 - Input)
The Present Value Factor is calculated using Sprint's weighted cost of capital.

5.3.11. Present Value of Cost (Line 30 - Calculation)
Annual Cost is multiplied by Present Value Factor to arrive at The Present Value of Cost.

5.3.12. Present Value of Demand (Line 31 - Calculation)
Total Query Octets is multiplied by Present Value Factor to arrive at The Present Value of Demand.

5.3.13. SCP TELRIC Cost Per Octet (Line 33 - Calculation)
SCP TELRIC Cost Per Octet is obtained by dividing Present Value of Expense by Present Value of Demand.

5.3.14. SMS/800 Records Administration Expense (Line 38 – Input)

This input is found in the National Database Inputs worksheet and represents estimated expenses prepared by Sprint Intelligent Network Operations Group.

5.3.15. Intelligent Network Operations Expense (Line 39 - Input)
Intelligent Network Operations represents the annual costs of oversight of Sprint's INO operations. Routine maintenance costs are performed by Sprint's Intelligent Network Engineering, which is recovered through the ACF applied to SCP investment.

5.3.16. Total National Database Expense (Line 40 - Calculation
Total National Database Expense is the sum of SMS/800 Records Administration Expense and Intelligent Network Operations Expense.

5.3.17. Toll Free Database Query Octets (Line 43 – Input)
Octet quantity is calculated by multiplying engineered query volumes by the average number octets per query.

5.3.18. P/F Present Value Factor (Line 45 - Input)
The Present Value Factor is calculated using Sprint's weighted cost of capital.

5.3.19. Present Value of Cost (Line 47 - Calculation)
SMS/800 Records Administration Expense is multiplied by Present Value Factor to arrive at The Present Value of Cost.

5.3.20. Present Value of Demand (Line 48 - Calculation)
Toll Free Database Query Octets is multiplied by Present Value Factor to arrive at the Present Value of Demand.

5.3.21. Incremental Toll Free Database Query TELRIC Cost Per Octet (Line 50 - Calculation)
Incremental Toll Free Database Query TELRIC Cost Per Octet is obtained by dividing Present Value of Expense by Present Value of Demand.

5.3.22. Total Toll Free Database Query TELRIC Cost Per Octet (Line 52 - Calculation)
Total Toll Free Database Query TELRIC Cost Per Octet is obtained by summing SCP TELRIC Cost Per Octet (Line 33) with Incremental Toll Free Database Query TELRIC Cost Per Octet.

5.3.23. Common Cost Factor (Line 54 - Input)
The Common Cost Factor is developed by the Sprint's TELRIC UNE Cost Model and is specific to the particular state under study.

5.3.24. Total Toll Free Database Query Economic Cost Per Octet (Line 56 - Calculation)
Total Toll Free Database Query Economic Cost Per Octet is obtained by multiplying Incremental Toll Free Database Query TELRIC Cost Per Octet by the Common Cost Factor.

5.3.25. Octets Per Toll Free Database Query (Line 58 – Input)
Octet quantity is calculated by multiplying engineered query volumes by the average number octets per query.

5.3.26. Total Toll Free Database Query Economic Cost Per Query (Line 60 - Calculation)
Total Toll Free Database Query Economic Cost Per Query is obtained by multiplying Total Toll Free Database Query Economic Cost Per Octet by the Octets Per Toll Free Database Query.

5.3.27. Query Transport and Switching (Line 62 - Calculation)
Query Transport and Switching represents the cost to deliver the query from the regional STPs where the query originated to the National STPs that support the LNP database. This cost number is the sum of a regional and a national per octet component multiplied by the average number of octets per query. Per octet costs for Regional STP switching and D-Link transport are calculated on Line 168 of the Total_Florida_TS_Calculations worksheet. Per octet costs for National STP switching are calculated on Line 66 of the National_TS_Calculations worksheet.

5.3.28. Total Toll Free Database Query Economic Cost Per Octet (Line 64 - Calculation)
Total Toll Free Database Query Economic Cost Per Octet is obtained by summing the Total Toll Free Database Query Economic Cost Per Query with the National Query Transport and Switching cost.

5.4. CNAM Query

Within each Line Information record of the LIDB Database is a data field that holds the "Calling Name" associated with that working telephone number. This field is up to 15 characters long. This information is delivered to called parties that subscribe to calling name service. Each time a caller's name is requested by the telephone company serving the called party, the called company pays a charge (per query) to the company that houses the caller's line information for the requested name.

As mentioned previously, the LIDB Database is modeled based on forward-looking SCP technology. Forward looking investment amounts are based on Sprint's Intelligent Network Operation's (INO) anticipated hardware and software investments required to support the three services supported by these SCPs in future years. Similar to investments, the octet demand numbers are based upon INO's engineered query demands multiplied by the average number of octets per query.

5.4.1. IN SCP Investment (Line 12 – Input)
This input is found in the National Database Inputs worksheet and represents forward-looking investments prepared by Sprint's Intelligent Network Operations Group.

5.4.2. Annual Charge Factor (ACF) (Line 14 - Input)
The Annual Charge Factor (ACF) is developed by the Sprint's TELRIC UNE Cost Model.

5.4.3. Annual Cost (Line 16 - Calculation)
The Annual Cost is calculated by multiplying the IN SCP Investment by the ACF.

5.4.4. National SCP Maintenance/Services (Line 18 - Input)
National SCP Maintenance/Services are based on hardware and software maintenance requirements provided by INO.

5.4.5. Total IN SCP Cost (Line 20 – Calculation)
The sum of Annual Cost and National SCP Maintenance/Services.

5.4.6. Toll Free Database Query Octets (Line 23 – Input)
Octet quantity is calculated by multiplying engineered query volumes by the average number octets per query.

5.4.7. CNAM Database Query Octets (Line 24 – Input)
Octet quantity is calculated by multiplying engineered query volumes by the average number octets per query

5.4.8. Calling Name Database Query Octets (Line 25 – Input)
Octet quantity is calculated by multiplying engineered query volumes by the average number octets per query.

5.4.9. Total Query Octets (Line 26 – Input)
This number is the sum of Toll Free, LIDB, and Calling Name Database Query Octets.

5.4.10. P/F Present Value Factor (Line 28 - Input)
The Present Value Factor is calculated using Sprint's weighted cost of capital.

5.4.11. Present Value of Cost (Line 30 - Calculation)
Annual Cost is multiplied by Present Value Factor to arrive at the Present Value of Cost.

5.4.12. Present Value of Demand (Line 31 - Calculation)
Total Query Octets is multiplied by Present Value Factor to arrive at the Present Value of Demand.

5.4.13. SCP TELRIC Cost Per Octet (Line 33 - Calculation)
SCP TELRIC Cost Per Octet is obtained by dividing Present Value of Cost by Present Value of Demand.

5.4.14. Intelligent Network Operations Expense (Line 38 - Input)
Intelligent Network Operations represents the annual costs of oversight of Sprint's INO operations. Routine maintenance costs are performed by Sprint's Intelligent Network Engineering, which is recovered through the ACF applied to SCP investment.

5.4.15. CNAM Administration (INAC - CNAM) (Line 39 – Input)

CNAM Administration represents costs incurred by the Intelligent Network Administration Center (INAC) specific to the continued maintenance of Sprint's systems that allow for the continued updating of CNAM database records incurred during 1999.

5.4.16. Record Acquisition and Maintenance Expenses (Line 40 - Input)
This input that represents the original entry costs of CNAM records as well as the ongoing cost of updating these records through Service Order Entry (SOE).

5.4.17. Total National CNAM Costs (Line 41 - Calculation)
Total National CNAM Costs is the sum of Lines 38 through 40.

5.4.18. CNAM Database Query Octets (Line 43 – Input)
Octet quantity found in the National Database Inputs worksheet.

5.4.19. P/F Present Value Factor (Line 45 - Input)
The Present Value Factor is calculated using Sprint's weighted cost of capital.

5.4.20. Present Value of Cost (Line 47 - Calculation)
CNAM Administration (INAC – CNAM) is multiplied by Present Value Factor to arrive at the Present Value of Cost.

5.4.21. Present Value of Demand (Line 48 - Calculation)
CNAM Database Query Octets is multiplied by Present Value Factor to arrive at the Present Value of Demand.

5.4.22. Incremental CNAM Database Query TELRIC Cost Per Octet (Line 50 - Calculation)
Incremental CNAM Database Query TELRIC Cost Per Octet is obtained by dividing Present Value of Cost by Present Value of Demand.

5.4.23. Total CNAM Database Query TELRIC Cost Per Octet (Line 52 - Calculation)
Total CNAM Database Query TELRIC Cost Per Octet is obtained by summing SCP TELRIC Cost Per Octet (Line 33) with Incremental CNAM Database Query TELRIC Cost Per Octet.

5.4.24. Common Cost Factor (Line 54 - Input)
The Common Cost Factor is developed by the Sprint's TELRIC UNE Cost Model and is specific to the particular state under study.

5.4.25. Total CNAM Database Query Economic Cost Per Octet (Line 56 - Calculation)
Total CNAM Database Query Economic Cost Per Octet is obtained by multiplying Incremental CNAM Database Query TELRIC Cost Per Octet by the Common Cost Factor.

5.4.26. Octets Per CNAM Database Query (Line 58 – Input)
Octets Per CNAM Database Query were prepared by Sprint's Intelligent Network Operations Group.

5.4.27. CNAM Database Query Economic Cost Per Query (Line 60 - Calculation)
Total CNAM Database Query Economic Cost Per Query is obtained by multiplying Total CNAM Database Query Economic Cost Per Octet by the Octets Per CNAM Database Query.

5.4.28. Query Transport and Switching (Line 62 - Calculation)
Query Transport and Switching represents the cost to deliver the query from the regional STPs where the query originated to the National STPs that support the LIDB database. This cost number is the sum of a regional and a national per octet component multiplied by the average number of octets per query. Per octet costs for Regional STP switching and D-Link transport are calculated on Line 168 of the Total_Florida_TS_Calculations worksheet. Per octet costs for National STP switching are calculated on Line 66 of the National_TS_Calculations worksheet.

5.4.29. Total CNAM Database Query Economic Cost (Line 64 - Calculation)
Total CNAM Database Query Economic Cost is the sum of CNAM Database Query Economic Cost Per Query, Line 60, and Query Transport and Switching, Line 62.

5.5. LIDB Query

As mentioned previously, the LIDB Database is modeled based on forward-looking SCP technology. Investment amounts are based on Sprint's Intelligent Network Operation's (INO) forward-looking hardware and software investment required to support the three services supported by these SCPs in future years. Similar to investments, the octet demand numbers are based upon INO's engineered query demands multiplied by the average number of octets per query.

5.5.1. IN SCP Investment (Line 12 – Input)
This input is found in the National Database Inputs worksheet and represents investment estimates prepared by Sprint's INO Group.

5.5.2. Annual Charge Factor (ACF) (Line 14 - Input)
The Annual Charge Factor (ACF) is developed by the Sprint's TELRIC UNE Cost Model.

5.5.3. Annual Cost (Line 16 - Calculation)
The Annual Cost is calculated by multiplying the IN SCP Investment by the ACF.

5.5.4. National SCP Maintenance/Services (Line 18 - Input)
National SCP Maintenance/Services are based on hardware and software maintenance requirements provided by Sprint's INO group.

5.5.5. Total IN SCP Cost (Line 20 – Calculation)
This is the sum of Annual Cost and National SCP Maintenance/Services.

5.5.6. Toll Free Database Query Octets (Line 23 – Input)
Octet quantity is calculated by multiplying engineered query volumes by the average number octets per query. Sprint's Intelligent Network Operations Group developed engineered query volumes.

5.5.7. LIDB Database Query Octets (Line 24 – Input)
Octet quantity is calculated by multiplying engineered query volumes by the average number octets per query. Sprint's Intelligent Network Operations Group developed engineered query volumes.

5.5.8. Calling Name Database Query Octets (Line 25 – Input)
Octet quantity is calculated by multiplying engineered query volumes by the average number octets per query. Sprint's Intelligent Network Operations Group developed engineered query volumes.

5.5.9. Total Query Octets (Line 26 – Input)
This number is the sum of Toll Free, LIDB, and Calling Name Database Query Octets.

5.5.10. P/F Present Value Factor (Line 28 - Input)
The Present Value Factor is calculated using Sprint's weighted cost of capital.

5.5.11. Present Value of Cost (Line 30 - Calculation)
Annual Cost is multiplied by Present Value Factor to arrive at the Present Value of Cost.

5.5.12. Present Value of Demand (Line 31 - Calculation)
Total Query Octets is multiplied by Present Value Factor to arrive at the Present Value of Demand.

5.5.13. SCP TELRIC Cost Per Octet (Line 33 - Calculation)
SCP TELRIC Cost Per Octet is obtained by dividing Present Value of Cost by Present Value of Demand.

5.5.14. LIDB Administration (INAC - LIDB) (Line 38 – Input)
LIDB Administration represents costs incurred by the Intelligent Network Administration Center (INAC) specific to the continued maintenance of Sprint's LIDB database incurred during 1999.

5.5.15. Intelligent Network Operations Expense (Line 39 - Input)
Intelligent Network Operations represents the annual costs of oversight of Sprint's INO operations. Routine maintenance costs are performed by Sprint's Intelligent Network Engineering, which is recovered through the ACF applied to SCP investment.

5.5.16. Total National Database Expense (Line 40 - Calculation
Total National Database Expense is the sum of SMS/800 Records Administration Expense and Intelligent Network Operations Expense.

5.5.17. LIDB Database Query Octets (Line 43 – Input)

Octet quantity found in the National Database Inputs worksheet.

5.5.18. P/F Present Value Factor (Line 44 - Input)

The Present Value Factor is calculated using Sprint's weighted cost of capital.

5.5.19. Present Value of Cost (Line 47 - Calculation)

LIDB Administration (INAC – LIDB) is multiplied by Present Value Factor to arrive at the Present Value of Cost.

5.5.20. Present Value of Demand (Line 48 - Calculation)

LIDB Database Query Octets is multiplied by Present Value Factor to arrive at the Present Value of Demand.

5.5.21. Incremental LIDB Database Query TELRIC Cost Per Octet (Line 50 - Calculation)

Incremental LIDB Database Query TELRIC Cost Per Octet is obtained by dividing Present Value of Expense by Present Value of Demand.

5.5.22. Total LIDB Database Query TELRIC Cost Per Octet (Line 52 - Calculation)

Total LIDB Database Query TELRIC Cost Per Octet is obtained by summing SCP TELRIC Cost Per Octet (Line 33) with Incremental LIDB Database Query TELRIC Cost Per Octet.

5.5.23. Common Cost Factor (Line 54 - Input)

The Common Cost Factor is developed by the Sprint's TELRIC UNE Cost Model and is specific to the particular state under study.

5.5.24. Total LIDB Database Query Economic Cost Per Octet (Line 56 - Calculation)

Total LIDB Database Query Economic Cost Per Octet is obtained by multiplying Incremental LIDB Database Query TELRIC Cost Per Octet by the Common Cost Factor.

5.5.25. Octets Per LIDB Database Query (Line 58 – Input)

Octets Per LIDB Database Query volumes were prepared by Sprint's Intelligent Network Operations Group.

5.5.26. Total LIDB Database Query Economic Cost Per Query (Line 60 - Calculation)

Total LIDB Database Query Economic Cost Per Query is obtained by multiplying Total LIDB Database Query Economic Cost Per Octet by the Octets Per LIDB Database Query.

5.5.27. Query Transport and Switching (Line 62 - Calculation)

Query Transport and Switching represents the cost to deliver the query from the regional STPs where the query originated to the National STPs that support the LNP database. This cost number is the sum of a regional and a national per octet component multiplied by the average number of octets per query. Per octet costs for Regional STP switching and D-Link transport are calculated on Line 168 of the Total_Florida_TS_Calculations worksheet. Per octet costs for National STP switching are calculated on Line 66 of the National_TS_Calculations worksheet.

5.6. LNP Database Query Calculations Overview

As mentioned previously, the LNP database resides in a separate pair of SCPs equipped with AIN trigger capabilities. Investment in these STPs reflects current vendor quotes. Investment amounts are based on Sprint's Intelligent Network Operation's (INO) anticipated hardware and software investments required to support the LNP services in future years. Similar to investments, the octet demand numbers are based upon INO's engineered query demands multiplied by the average number of octets per LNP query.

5.6.1. LNP SCP Investment (Line 10)

Forward-looking investment amounts are based on Sprint's Intelligent Network Operation's (INO) anticipated hardware and software investments required to support the LNP services in future years.

5.6.2. Annual Charge Factor (Line 12)

The Annual Charge Factor (ACF) is developed by the Sprint's TELRIC UNE Cost Model and is specific to the particular state under study.

5.6.3. Annual Costs (Line 14)

Annual Costs is calculated by applying the ACF to SCP Investment.

5.6.4. Annual Query Demand (Lines 16 through 20)

The octet demand numbers are based upon INO's engineered query demands multiplied by the average number of octets per LNP query.

5.6.5. P/F Present Value Factor (Line 22)

The Present Value Factor is calculated based upon Sprint's weighted cost of capital.

5.6.6. Present Value of Costs and Demand (Lines 24 and 25)

Present Value of Costs is the PV of Annual TELRIC Cost from line 14. Annual TELRIC Cost is multiplied by the Present Value Factor to arrive at its present value. Like wise, Present Value of Demand is the PV Total Octet Demand from line 20. Annual TELRIC Cost is multiplied by the Present Value Factor to arrive at its present value.

5.6.7. Levelized Costs Per Octet (Line 27)

Levelized Costs Per Octet is calculated by dividing Line 24 (Present Value of Costs) by Line 25 (Present Value Demand).

5.6.8. Incremental LNP Service Costs - LNP Administration (Line 38)

LNP Administration represents costs incurred by the Intelligent Network Administration Center (INAC) specific to the continued maintenance of Sprint's LNP database incurred during 1999.

5.6.9. LNP Database Query Octets (Line 40)
See Line 20 above.

5.6.10. P/F Present Value Factor (Line 42)
See Line 22 above.

5.6.11. Present Value of Costs (Line 44)
Annual LNP specific costs appearing on Line 38 are discounted using the Present Value Factor appearing on Line 42.

5.6.12. Present Value of Demand (Line 45)
Annual LNP demand appearing on Line 40 are discounted using the Present Value Factor appearing on Line 42.

5.6.13. Incremental LNP Cost Per Octet (Line 47)
Incremental LNP Cost Per Octet is calculated by dividing the present value of LNP specific costs appearing on Line 44 by the present value of demand on Line 45.

5.6.14. Total LNP Database Query TELRIC Cost Per Octet (Line 49)
Total LNP Database Query TELRIC Cost Per Octet is the sum of Incremental LNP Cost Per Octet (Line 47) and Levelized Cost Per Octet (Line 27).

5.6.15. Common Cost Factor (Line 51)
The Common Cost Factor is developed by the Sprint's TELRIC UNE Cost Model and is specific to the particular state under study.

5.6.16. Total LNP Database Query Economic Cost Per Octet (Line 53)
Total LNP Database Query Economic Cost Per Octet is calculated by multiplying Total LNP Database Query TELRIC Cost Per Octet (Line 49) by the Common Cost Factor (Line 51).

5.6.17. Octets Per LNP Database Query (Line 55)
Octets Per LNP Database Query represents the average number octets per LNP query.

5.6.18. Total LNP Database Query Economic Cost Per Query (Line 57)
Average Octets per LNP (Line 55) query are multiplied by Total LNP Database Query Economic Cost Per Octet (Line 53) to arrive at Total LNP Database Query Economic Cost Per Query.

5.6.19. Query Transport and Switching (Line 59)
Query Transport and Switching represents the cost to deliver the query from the regional STPs where the query originated to the National STPs that supports the LNP database. This cost number is the sum of a regional and a national per octet component multiplied by the average number of octets per query. Per octet costs for Regional STP switching

and D-Link transport are calculated on Line 168 of the Total_Florida_TS_Calculations worksheet. Per octet costs for National STP switching are calculated on Line 66 of the National_TS_Calculations worksheet.

5.6.20. Total LNP Database Query Economic Cost Per Query (Line 61)
Total LNP Database Query Economic Cost Per Query is the sum of Query Transport and Switching (Line 59) and Total LNP Database Query Economic Cost Per Query (Line 57).

5.7. *Florida Traffic Sensitive Worksheets:*

5.7.1. STP Non-Port/Common Traffic Sensitive Investment Rate

5.7.2. Total STP Investment (Line 9 - Input)
Total investment per STP is based on recent vendor quotes. The total number of links served drives the difference in cost of STP pairs among the regions and investment growth of individual STP pairs.

5.7.3. Port Investment (Line 10 - Input)
Port investment represents those components of the STP that vary with the number of links supported by the STP. This includes a portion of the link interface modules and associated software, extension shelves and frames, translation software modules, and shelf cabling. Additionally, a port of the control shelf and frame, STP-LAN interface modules, and application communication modules have been included as port investment.

The number of ports included in Port Investment includes ports serving A, B, and D links. Ports serving C links are not included are included in common investment.

5.7.4. Non-Port STP Investment (Line 12 - Calculation)
Non-Port STP Investment is the difference between the Total STP Investment and the Port Investment.

5.7.5. Annual Charge Factor (Line 14 - Input)
The Annual Charge Factor (ACF) is developed by the Sprint's TELRIC UNE Cost Model and is specific to the particular state under study.

5.7.6. Annual Cost (Line 16 - Calculation)
The annual cost for common STP investment is calculated by multiplying the non-port STP investment by the ACF.

5.7.7. Busy Hour (BH) Octet Demand (Line 18 - Input)
Octet measurements were taken for each link in the SS7 network for the month of April. A simple average busy hour demand was calculated by link type (A, B, C, and D). The average busy hour demand by link type was then multiplied by the respective number of links at the STP location under study.

As mentioned above, C-links are common investment and not included as part of port investment. Therefore, the demand associated with these links was excluded in the total Busy Hour demand calculated here.

5.7.8. Busy Hour/Full Day Ratio (Line 19 - Input)

The Busy Hour/Full Day Ratio is an estimate of what percent of the day's total octet demand occurs during the busy hour.

5.7.9. Daily Octet Demand (Line 20 – Calculation)

The Daily Octet Demand is calculated by dividing Busy Hour Octet Demand by the Busy Hour/Full Day Ratio.

5.7.10. Equivalent Business Days (Line 21 - Input)

Equivalent Business Days represent the number of business days in a year

5.7.11. Annual Octet Demand (Line 22 - Calculation)

The number of Equivalent Business Days is multiplied by the Daily Octet Demand to arrive at the Annual Octet Demand.

5.7.12. P/F Present Value Factor (Line 24 - Input)

The Present Value Factor is calculated using Sprint's weighted cost of capital.

5.7.13. Present Value of Cost (Line 26 - Calculation)

Annual Cost is multiplied by Present Value Factor to arrive at the Present Value of Cost.

5.7.14. Present Value of Demand (Line 27 - Calculation)

Annual Octet Demand is multiplied by Present Value Factor to arrive at the Present Value of Demand.

5.7.15. Levelized Revenue Requirement (Line 29 - Calculation)

Dividing the total PV of Cost by the PV of Demand results in the Levelized Revenue Requirement Per Octet.

5.7.16. Common Cost Factor (Line 31 - Input)

The Common Cost Factor is developed by the Sprint's TELRIC UNE Cost Model and is specific to the particular state under study.

5.7.17. STP Non-Port Traffic Sensitive Rate Per Octet (Line 33 - Calculation)

The Levelized Revenue Requirement is multiplied by 1 + the Common Cost Factor to arrive at the STP Non-Port Traffic Sensitive Rate per Octet.

5.7.18. STP Non-Port Traffic Sensitive Investment Per Message (Line 35 - Calculation)

STP Non-Port Traffic Sensitive Investment Per Message is multiplied by the number of octets contained in a query. This number is found in the National Database Inputs worksheet (line 59).

5.8. D-Link Port STP Traffic Sensitive Rate

5.8.1. Total Port Investment (Line 41 - Input)

Port investment represents those components of the STP that vary with the number of links supported by the STP. This includes a portion of the link interface modules and associated software, extension shelves and frames, translation software modules, and shelf cabling. Additionally, a port of the control shelf and frame, STP-LAN interface modules, and application communication modules have been included as port investment.

The number of ports included in Port Investment includes ports serving A, B, and D links. Ports serving C links are included in common investment.

5.8.2. *Total Links (Line 42 - Input)*

Total Links represents the total number of engineered A, B, and D links for the STP pair under study.

5.8.3. *Total Link Port Investment (Line 44 - Calculation)*

Total Port Investment is divided by the number of links to arrive at the Total Link Port Investment.

5.8.4. *Annual Charge Factor (Line 46 - Input)*

The Annual Charge Factor (ACF) is developed by the Sprint's TELRIC UNE Cost Model and is specific to the particular state under study.

5.8.5. *Annual Cost (Line 48 - Calculation)*

The annual cost is calculated by multiplying the Total Link Port Investment by the ACF.

5.8.6. Busy Hour (BH) Octet Demand (Line 50 - Input)

Octet measurements were taken for each link in the SS7 network for the month of April. A simple average busy hour demand was calculated by link type (A, B, C, and D). The average busy hour demand for D-links was then multiplied by the number of D-links at the STP location under study.

5.8.7. Busy Hour/Full Day Ratio (Line 51 - Input)

The Busy Hour/Full Day Ratio is an estimate of what percent of the day's total octet demand occurs during the busy hour.

5.8.8. Daily Octet Demand (Line 52 - Calculation)

The Daily Octet Demand is calculated by dividing Busy Hour Octet Demand by the Busy Hour/Full Day Ratio.

5.8.9. Equivalent Business Days (Line 53 - Input)

Equivalent Business Days represent the number of business days in a year.

5.8.10. Annual Octet Demand (*Line 54 - Calculation*)

The number of Equivalent Business Days is multiplied by the Daily Octet Demand to arrive at the Annual Octet Demand.

5.8.11. P/F Present Value Factor (Line 56 - Input)
The Present Value Factor is calculated using Sprint's weighted cost of capital.

5.8.12. Present Value of Cost (Line 58 - Calculation)
Annual Cost is multiplied by Present Value Factor to arrive at the Present Value of Cost.

5.8.13. Present Value of Demand (Line 59 - Calculation)
Annual Octet Demand is multiplied by Present Value Factor to arrive at the Present Value of Demand.

5.8.14. Levelized Cost Per Octet (Line 61)
Dividing the total PV of cost by the PV of demand results in the Levelized Cost Per Octet.

5.8.15. Common Cost Factor (Line 63 - Input)
The Common Cost Factor is developed by the Sprint's TELRIC UNE Cost Model and is specific to the particular state under study.

5.8.16. STP Traffic Sensitive Rate Per Octet (Line 65 - Calculation)
The Levelized Cost Per Octet is multiplied by 1 + the Common Cost Factor to arrive at the STP Traffic Sensitive Rate per Octet.

5.9. D-Link Traffic Sensitive Rate

5.9.1. Lease Expense Per D-Link Per Month (Line 73 - Input)
Lease Expense Per D-Link Per Month is located in the Network Inputs worksheet.

5.9.2. Total Annual D-Link Expense (Line 74 - Calculation)
Lease Expense Per D-Link Per Month multiplied by 12 provides the Total Annual D-Link Expense.

5.9.3. Busy Hour Octet Demand (Line 76 - Input)
Octet measurements were taken for each link in the SS7 network for the month of April. A simple average busy hour demand was calculated by link type (A, B, C, and D).

5.9.4. Percentage of Traffic Occurring during the Busy Hour (Line 77 - Input)
The Busy Hour/Full Day Ratio is an estimate of what percent of the day's total octet demand occurs during the busy hour.

5.9.5. Estimated Daily Octet Demand (Line 78 - Calculation)
Busy Hour Octet Demand is multiplied by Percentage of Traffic Occurring during the Busy Hour to arrive at Estimated Daily Octet Demand.

5.9.6. Equivalent Business Days Per Year (EBD) (Line 79 - Input)
Equivalent Business Days Per Year represent the number of business days in a year.

5.9.7. Total Annual Octet Demand (Line 80 - Calculation)
Estimated Daily Octet Demand is multiplied by Equivalent Business Days to arrive at Total Annual Octet Demand.

5.9.8. P/F Present Value Factor (Line 82 - Input)
The Present Value Factor is calculated using Sprint's weighted cost of capital.

5.9.9. Present Value of D-Link Lease Expense (Line 84 - Calculation)
Total Annual D-Link Expense is multiplied by the Present Value Factor to arrive at the present value.

5.9.10. Present Value of Demand (Line 85 - Calculation)
Total Annual Octet Demand is multiplied by the Present Value Factor to arrive at the present value for Octet Demand.

5.9.11. Levelized Expense per Octet (Line 87 - Calculation)
Dividing the total PV of the D-Link Lease Expense by the PV of demand results in the Levelized Expense Per Octet.

5.9.12. Common Expense Factor (Line 89 - Input)
The Common Factor is developed by the Sprint's TELRIC UNE Cost Model and is specific to the particular state under study.

5.9.13. D-Link Rate Per Octet (Line 91 - Calculation)
The Levelized Expense per Octet is multiplied by 1 + the Common Expense Factor to arrive at the D-Link Rate per Octet.

5.10. Local Query Transport and Switching

5.10.1. D-Link Rate Per Octet (Line 89 - Input)
This number comes from line 91 in the worksheet.

5.10.2. STP Traffic Sensitive Rate Per Octet (Line 100 - Input)
This number comes from line 65 in the worksheet.

5.10.3. STP Non-Port Traffic Sensitive Rate Per Octet (Line 102 - Input)
This number comes from line 33 in the worksheet.

5.10.4. Total Local Query Transport and Switching Per Octet (Line 104 - Calculation)
This is the sum of D-Link Rate Per Octet, STP Traffic Sensitive Rate Per Octet, and STP Non-Port Traffic Sensitive Rate Per Octet.

National Traffic Sensitive Worksheets:

5.11. STP Non-Port Traffic Sensitive Investment

5.11.1. Total STP Investment (Line 9 - Input)

Total investment per STP is based on recent vendor quotes. The total number of links served drives the difference in the cost of STP pairs among the regions. However, the Tennessee STP Investment amount is used because the National STPs are located in that state.

5.11.2. Port Investment (Line 10 - Input)

Port investment represents those components of the STP that vary with the number of links supported by the STP. This includes a portion of the link interface modules and associated software, extension shelves and frames, translation software modules, and shelf cabling. Additionally, a port of the control shelf and frame, STP-LAN interface modules, and application communication modules have been included as port investment.

The number of ports included in Port Investment includes ports serving A, B, and D links. Ports serving C links are considered common investment and not included here. Therefore the associated investment with these ports are considered for the non-port STP investment for the sake of this study.

5.11.3. Non-Port STP Investment (Line 12 - Calculation)

Non-Port STP Investment is the difference between the Total STP Investment and the Port Investment.

5.11.4. Annual Charge Factor (Line 14 - Input)

The Annual Charge Factor (ACF) is developed by the Sprint's TELRIC UNE Cost Model and is specific to the particular state under study.

5.11.5. Annual Cost (Line 16 - Calculation)

The annual cost for non-port STP investment is calculated by multiplying the non-port STP investment by the ACF.

5.11.6. Busy Hour (BH) Octet Demand (Line 18 - Input)

Octet measurements are based on actual usage during 1999. A simple average busy hour demand was calculated by link type (A, B, C, and D). The average busy hour demand by link type was then multiplied by the respective number of links at the STP location under study.

As mentioned above, for the sake of this study C-links were not included as part of port investment. Therefore, the demand associated with these links was excluded in the total Busy Hour demand calculated here.

5.11.7. Busy Hour/Full Day Ratio (Line 19 - Input)

The Busy Hour/Full Day Ratio is an estimate of what percent of the day's total octet demand occurs during the busy hour.

5.11.8. Daily Octet Demand (Line 20 – Calculation)

The Daily Octet Demand is calculated by dividing Busy Hour Octet Demand by the Busy Hour/Full Day Ratio.

5.11.9. Equivalent Business Days (Line 21 - Input)
Equivalent Business Days represent the number of business days in a year

5.11.10. Annual Octet Demand (Line 22 - Calculation)
The number of Equivalent Business Days is multiplied by the Daily Octet Demand to arrive at the Annual Octet Demand.

5.11.11. P/F Present Value Factor (Line 24 - Input)
The Present Value Factor is calculated using Sprint's weighted cost of capital.

5.11.12. Present Value of Cost (Line 26 - Calculation)
Annual Cost is multiplied by Present Value Factor to arrive at the Present Value of Cost.

5.11.13. Present Value of Demand (Line 27 - Calculation)
Annual Octet Demand is multiplied by Present Value Factor to arrive at The Present Value of Demand.

5.11.14. Levelized Revenue Requirement (Line 29 - Calculation)
Dividing the total PV of Cost by the PV of Demand results in the Levelized Revenue Requirement Per Octet.

5.11.15. Common Cost Factor (Line 31 - Input)
The Common Cost Factor is developed by the Sprint's TELRIC UNE Cost Model and is specific to the particular state under study.

5.11.16. STP Non-Port Traffic Sensitive Rate Per Octet (Line 33 - Calculation)
The Levelized Revenue Requirement is multiplied by 1 + the Common Cost Factor to arrive at the STP Non-Port Traffic Sensitive Rate per Octet.

5.12. D-Link Port STP Traffic Sensitive Rate

5.12.1. Total Port Investment (Line 40 - Input)
Port investment represents those components of the STP that vary with the number of links supported by the STP. This includes a portion of the link interface modules and associated software, extension shelves and frames, translation software modules, and shelf cabling. Additionally, a port of the control shelf and frame, STP-LAN interface modules, and application communication modules have been included as port investment.

The number of ports included in Port Investment includes ports serving A, B, and D links. Ports serving C links are not included. Therefore the associated investment with these ports are considered for the non-port STP investment for the sake of this study.

5.12.2. Total Links (Line 41 - Input)
Total Links represents the total number of engineered A, B, and D links for the STP pair under study.

5.12.3. Total Link Port Investment (Line 43 - Calculation)

Total Port Investment is divided by the number of links to arrive at the Total Link Port Investment.

5.12.4. Annual Charge Factor (Line 45 - Input)

The Annual Charge Factor (ACF) is developed by the Sprint's TELRIC UNE Cost Model and is specific to the particular state under study.

5.12.5. Annual Cost (Line 47 - Calculation)

The annual cost for non-port STP investment is calculated by multiplying the Total Link Port Investment by the ACF.

5.12.6. Busy Hour (BH) Octet Demand (Line 49 - Calculation)

Octet measurements are based on actual usage during 1999. A simple average busy hour demand was calculated by link type (A, B, C, and D). The average busy hour demand for D-links was then multiplied by the number of D-links at the STP location under study to arrive at total D-Link octet demand.

5.12.7. Busy Hour/Full Day Ratio Daily Octet Demand (Line 50 - Input)

The Busy Hour/Full Day Ratio is an estimate of what percent of the day's total octet demand occurs during the busy hour.

5.12.8. Daily Octet Demand (Line 51 - Calculation)

The Daily Octet Demand is calculated by dividing Busy Hour Octet Demand by the Busy Hour/Full Day Ratio.

5.12.9. Equivalent Business Days (Line 52 - Input)

Equivalent Business Days represent the number of business days in a year.

5.12.10. Annual Octet Demand (Line 53 - Calculation)

The number of Equivalent Business Days is multiplied by the Daily Octet Demand to arrive at the Annual Octet Demand.

5.12.11. P/F Present Value Factor (Line 55 - Input)

The Present Value Factor is calculated using Sprint's weighted cost of capital.

5.12.12. Present Value of Cost (Line 57 - Calculation)

Annual Cost is multiplied by Present Value Factor to arrive at The Present Value of Cost.

5.12.13. Present Value of Demand (Line 58 – Calculation)

Annual Octet Demand is multiplied by Present Value Factor to arrive at The Present Value of Demand.

5.12.14. Levelized Expense Per Octet (Line 60 - Calculation)

Dividing the total PV of the costs by the PV of demand results in the Levelized Cost Per Octet.

5.12.15. Common Cost Factor (Line 62 - Input)
The Common Cost Factor is developed by the Sprint's TELRIC UNE Cost Model and is specific to the particular state under study.

5.12.16. D-Link Port Traffic Sensitive Rate Per Octet (Line 64 - Calculation)
The Levelized Expense Per Octet is multiplied by 1 + the Common Cost Factor to arrive at the D-Link Port Traffic Sensitive Rate.

5.12.17. Total STP Traffic Sensitive Rate Per Octet (Line 66 - Calculation)
D-Link Port Traffic Sensitive Rate is added to the STP Non-Port Traffic Sensitive Rate Per Octet (Line 33).

6. Sprint SS7 UNE Cost Model

6.1. Introduction

The Sprint SS7 Cost Model is an Excel spreadsheet model. All inputs and calculations are readily observable. The model consists of location-specific input and calculation worksheets.

6.2. Inputs and Methodology

6.2.1. Regional STP Calculations Overview

Total investment per STP pair is calculated based on recent vendor quotes. Based upon the number of links served by a particular STP, quantities of certain component parts of the STP will vary. Therefore, the total investment per STP pair will vary by location. Likewise, as links are added in future years, the investment per STP pair will also increase.

The model divides STP investment into port and non-port investment. Port investment consists of the necessary cards, shelves, and frames associated with connecting A, B, and D links to the STP. The remaining investment is considered non-port STP investment. Traffic sensitive rates are then developed for Sprint ports, links, and the non-port portion of the STP.

6.2.2. Regional STP Port Investment

6.2.2.1. Link Interface Module (Line 9 – Input & Calculation)
Material costs are based on vendor quotes and are found in the Network Inputs worksheet. *Local EF&I* is derived by multiplying Material Costs by a percentage which represents Sprint's EF&I cost as a percent of Material Costs. This factor is found on Line 34 in the Network Inputs worksheet. *Sales Tax* is a calculation using specific state tax rates and applying them to Material Costs. *Total Investment* is the sum of Material

Costs, Local EF&I, and Sales Tax. *Capacity* represents the number of individual links that each component part supports. Dividing Total Investment by Capacity results in *Total Investment per Port*. The *Percent Fill* represents the percent that each component part is utilized based on the number over links support by the Florida STPs. For example, if an ACM has capacity to support 60 links and there are currently 25 links on a given STP, the percent fill would be approximately 42%. *Total Cost* is then derived by dividing Total Investment per port by the Percent Fill factor.

6.2.2.2. Link Interface Module Software (Line10 – Input & Calculation)

Same as Link Interface Module (Line 9).

6.2.2.3. STP-LAN Interface Feature Module (Line11 – Input & Calculation)

Same as Link Interface Module (Line 9).

6.2.2.4. Applications Communications Module (ACM) (Line12 – Input & Calculation)

Same as Link Interface Module (Line 9).

6.2.2.5. Application Service Module (ASM) (Line13 – Input & Calculation)

Same as Link Interface Module (Line 9).

6.2.2.6. Extension Shelf (Line14 – Input & Calculation)

Same as Link Interface Module (Line 9).

6.2.2.7. Extension Frame (Line15 – Input & Calculation)

Same as Link Interface Module (Line 9).

6.2.2.8. STP Installation Cables (One per Wired Shelf (Line16 – Input & Calculation)

Same as Link Interface Module (Line 9).

6.2.2.9. Total Investment Before Labor & Translation (Line17 – Calculation)

Sum of lines 9 through 17.

6.2.2.10. Labor – Connection & Translations (Line 19 – Calculation)

Labor – Connections & Translations rate is charged at 20% of Total Investment before Labor & Translation and represents the cost of Intelligent Network Operations configuring the STP to accommodate the additional link.

6.2.2.11. Total Port Investment (Line 20 – Calculation)

Sum of Total Investment Before Labor & Translation and Labor – Connections & Translations.

6.2.2.12. Annual Charge Factor (Line 22 - Input)

The Annual Charge Factor (ACF) is developed by the Sprint's TELRIC UNE Cost Model and is specific to the particular state under study.

6.2.2.13. Annual Recurring TELRIC Costs (Line24 – Calculation)
Total Port Investment multiplied by the ACF provides Annual Recurring Costs.

6.2.2.14. Monthly Recurring TELRIC Costs (Line25 – Calculation)
The Annual Recurring Costs are divided by twelve.

6.2.2.15. Common Cost Factor (Line 27 - Input)
The Common Cost Factor is developed by the Sprint's TELRIC UNE Cost Model and is specific to the particular state under study.

6.2.2.16. Monthly Port Rate (Line 29 - Calculation)
The Monthly Recurring Costs are multiplied by 1 + the Common Cost Factor to arrive at the Monthly Port Rate.

6.3. STP Switching Overview

The STP switching service is for the routing of the ISDN User Part (ISUP) message through the STP. The rate for switching is applied on the basis of equivalent 56.0 kbps trunks per month. The T-1 rate would be equal to 24 times the STP switching rate per 56.0 kbps trunk per month.

6.3.1. STP Switching

6.3.1.1. Non-Port STP/Common Investment (Line 38 – Input)
This input is found in the traffic-sensitive worksheet and represents investment dollars based on vendor quotes.

6.3.1.2. Annual Charge Factor (ACF) (Line 40 - Input)
The Annual Charge Factor (ACF) is developed by the Sprint's TELRIC UNE Cost Model and is specific to the particular state under study.

6.3.1.3. Annual TELRIC Cost (Line 42 - Calculation)
The Annual TELRIC Cost for non-port STP investment is calculated by multiplying the non-port STP investment by the ACF.

6.3.1.4. P/F Present Value Factor (Line 44 - Input)
The Present Value Factor is calculated based upon Sprint's weighted cost of capital.

6.3.1.5. Levelized Annual TELRIC Cost (Line 46 - Calculation)
Levelized Annual TELRIC Cost is the PV of Annual TELRIC Cost from line 42. Annual TELRIC Cost is multiplied by the Present Value Factor to arrive at its present value.

6.3.1.6. Total Access Lines (Line 48 – Input)
Total Access Lines is based on each state and found in the State Inputs worksheet.

6.3.1.7. Trunk to Line Ratio (Line 49 – Input)

This ratio is found in the Network Wide Inputs worksheet.

6.3.1.8. Number of Trunks (Line 50 – Calculation)
Multiply Total Access Lines by the Trunk to Line Ratio to arrive at total trunks required.

6.3.1.9. Present Value of Demand (Line 51 – Calculation)
Number of Trunks is multiplied by the Present Value Factor to arrive at a present value for Trunk Demand.

6.3.1.10. Levelized Annual Cost Per Trunk (Line 53 – Calculation)
The Levelized Annual Cost Per Trunk is a monthly number obtained by dividing the Levelized Annual TELRIC Cost by the Present Value of Demand.

6.3.1.11. Levelized Monthly Cost Per Trunk (Line 54 – Calculation)
Divide the Levelized Annual Cost Per Trunk by 12.

6.3.1.12. Common Cost Factor (Line 56 - Input)
The Common Cost Factor is developed by the Sprint's TELRIC UNE Cost Model and is specific to the particular state under study.

6.3.1.13. Monthly Rate Port Rate (Line 58 – Calculation)
The Levelized Monthly Cost Per Trunk is multiplied by 1 + the Common Cost Factor to arrive at the Monthly Rate Port Rate.

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Workpapers 1

Model Output Summary

Copper Cable Costs						
Cable Size	Aerial		Buried		Underground	
	26	24	26	24	26	24
4200	$50.28	$50.28	$50.05	$50.05	$53.08	$53.08
3600	$43.46	$43.46	$42.99	$42.99	$46.01	$46.01
3000	$37.25	$37.25	$36.56	$36.56	$39.51	$39.51
2400	$27.03	$31.65	$25.95	$30.78	$29.23	$33.59
2100	$23.70	$29.18	$22.50	$28.24	$25.77	$30.94
1800	$20.71	$25.75	$19.41	$24.69	$22.63	$27.38
1200	$14.67	$17.65	$13.17	$16.29	$16.30	$19.11
900	$11.63	$13.82	$10.03	$12.31	$13.11	$15.17
600	$8.71	$10.06	$7.01	$8.42	$10.03	$11.31
400	$6.37	$7.35	$5.17	$6.19	$8.14	$9.06
300	$5.26	$6.12	$4.02	$4.92	$6.98	$7.80
200	$4.28	$4.78	$3.01	$3.53	$5.96	$6.43
100	$2.93	$3.18	$2.00	$2.26	$4.93	$5.17
50	$2.45	$2.56	$1.51	$1.62	$4.43	$4.53
25	$2.18	$2.25	$1.23	$1.30	$4.15	$4.21
18	$2.08	$2.13	$1.13	$1.18	$4.05	$4.09
12	$2.05	$2.07	$1.10	$1.11	$4.01	$4.03

Fiber Costs			
Fiber Size	Aerial	Buried	Underground
288	$7.89	$8.48	$11.27
144	$4.78	$4.78	$7.12
96	$3.74	$3.52	$5.72
72	$3.54	$2.87	$5.37
60	$2.98	$2.61	$4.71
48	$2.85	$2.24	$4.50
36	$2.62	$1.96	$4.18
24	$2.27	$1.68	$3.74
18	$2.12	$1.55	$3.55
12	$2.05	$1.39	$3.43

A	In-Place Cost B = G + K	Material Cost **C = Copper Cost Inputs Sheet**	Exempt Material **D = C * 32.68%**	Subtotal Material and Exempt Costs **E = C + D**	Sales Tax **F = E * 6.59%**	Total Material **G = E + F**	Placement Cost **H = Footnote 1**	Splice Cost **I = $.003 * A**	Engineering Cost **J = $.80**	Total Labor **K = H + I + J**
Aerial Cable - 26										
4200	**$50.28**	$24.72	$8.08	$32.79	$2.16	$34.95	$1.93	$12.60	$0.80	$15.33
3600	**$43.46**	$21.16	$6.92	$28.08	$1.85	$29.93	$1.93	$10.80	$0.80	$13.53
3000	**$37.25**	$18.04	$5.90	$23.94	$1.58	$25.52	$1.93	$9.00	$0.80	$11.73
2400	**$27.03**	$12.09	$3.95	$16.04	$1.06	$17.10	$1.93	$7.20	$0.80	$9.93
2100	**$23.70**	$10.37	$3.39	$13.76	$0.91	$14.67	$1.93	$6.30	$0.80	$9.03
1800	**$20.71**	$8.89	$2.91	$11.80	$0.78	$12.58	$1.93	$5.40	$0.80	$8.13
1200	**$14.67**	$5.90	$1.93	$7.82	$0.52	$8.34	$1.93	$3.60	$0.80	$6.33
900	**$11.63**	$4.39	$1.43	$5.82	$0.38	$6.20	$1.93	$2.70	$0.80	$5.43
600	**$8.71**	$2.95	$0.97	$3.92	$0.26	$4.18	$1.93	$1.80	$0.80	$4.53
400	**$6.37**	$2.12	$0.69	$2.81	$0.19	$3.00	$1.38	$1.20	$0.80	$3.37
300	**$5.26**	$1.54	$0.50	$2.05	$0.13	$2.18	$1.38	$0.90	$0.80	$3.07
200	**$4.28**	$1.07	$0.35	$1.41	$0.09	$1.51	$1.38	$0.60	$0.80	$2.77
100	**$2.93**	$0.59	$0.19	$0.78	$0.05	$0.83	$1.00	$0.30	$0.80	$2.09
50	**$2.45**	$0.36	$0.12	$0.47	$0.03	$0.50	$1.00	$0.15	$0.80	$1.94
25	**$2.18**	$0.22	$0.07	$0.29	$0.02	$0.31	$1.00	$0.08	$0.80	$1.87
18	**$2.08**	$0.17	$0.05	$0.22	$0.01	$0.24	$1.00	$0.05	$0.80	$1.85
12	**$2.05**	$0.16	$0.05	$0.21	$0.01	$0.22	$1.00	$0.04	$0.80	$1.83

	In-Place Cost	Material Cost	Exempt Material	Subtotal Material and Exempt Costs	Sales Tax	Total Material	Placement Cost	Splice Cost	Engineering Cost	Total Labor
A	B = G + K	C = Copper Cost Inputs Sheet	D = C * 32.68%	E = C + D	F = E * 6.59%	G = E + F	H = Footnote 1	I = $.003 * A	J = $.80	K = H + I + J
Aerial Cable -24										
4200	**$50.28**	$24.72	$8.08	$32.79	$2.16	$34.95	$1.93	$12.60	$0.80	$15.33
3600	**$43.46**	$21.16	$6.92	$28.08	$1.85	$29.93	$1.93	$10.80	$0.80	$13.53
3000	**$37.25**	$18.04	$5.90	$23.94	$1.58	$25.52	$1.93	$9.00	$0.80	$11.73
2400	**$31.65**	$15.36	$5.02	$20.37	$1.34	$21.72	$1.93	$7.20	$0.80	$9.93
2100	**$29.18**	$14.25	$4.66	$18.90	$1.25	$20.15	$1.93	$6.30	$0.80	$9.03
1800	**$25.75**	$12.46	$4.07	$16.53	$1.09	$17.62	$1.93	$5.40	$0.80	$8.13
1200	**$17.65**	$8.01	$2.62	$10.62	$0.70	$11.32	$1.93	$3.60	$0.80	$6.33
900	**$13.82**	$5.93	$1.94	$7.87	$0.52	$8.39	$1.93	$2.70	$0.80	$5.43
600	**$10.06**	$3.91	$1.28	$5.19	$0.34	$5.53	$1.93	$1.80	$0.80	$4.53
400	**$7.35**	$2.81	$0.92	$3.73	$0.25	$3.97	$1.38	$1.20	$0.80	$3.37
300	**$6.12**	$2.15	$0.70	$2.86	$0.19	$3.05	$1.38	$0.90	$0.80	$3.07
200	**$4.78**	$1.42	$0.46	$1.89	$0.12	$2.01	$1.38	$0.60	$0.80	$2.77
100	**$3.18**	$0.77	$0.25	$1.02	$0.07	$1.08	$1.00	$0.30	$0.80	$2.09
50	**$2.56**	$0.43	$0.14	$0.57	$0.04	$0.61	$1.00	$0.15	$0.80	$1.94
25	**$2.25**	$0.27	$0.09	$0.35	$0.02	$0.38	$1.00	$0.08	$0.80	$1.87
18	**$2.13**	$0.20	$0.07	$0.27	$0.02	$0.28	$1.00	$0.05	$0.80	$1.85
12	**$2.07**	$0.17	$0.05	$0.22	$0.01	$0.24	$1.00	$0.04	$0.80	$1.83

Footnote 1 1-100 Placement = $1.00
101-400 Placement = $1.38
401-4200 Placement = $1.93

A	In-Place Cost B = G + K	Material Cost C = Copper Cost Inputs Sheet	Exempt Material D = C * 39.02%	Subtotal Material and Exempt Costs E = C + D	Sales Tax F = E * 6.59%	Total Material G = E + F	Placement Cost H = $.19	Splice Cost I = $.003 * A	Engineering Cost J = $.63	Total Labor K = H + I + J
Buried Cable - 26										
4200	**$50.05**	$24.72	$9.64	$34.36	$2.26	$36.62	$0.19	$12.60	$0.63	$13.43
3600	**$42.99**	$21.16	$8.26	$29.42	$1.94	$31.36	$0.19	$10.80	$0.63	$11.63
3000	**$36.56**	$18.04	$7.04	$25.08	$1.65	$26.74	$0.19	$9.00	$0.63	$9.83
2400	**$25.95**	$12.09	$4.72	$16.81	$1.11	$17.92	$0.19	$7.20	$0.63	$8.03
2100	**$22.50**	$10.37	$4.05	$14.42	$0.95	$15.37	$0.19	$6.30	$0.63	$7.13
1800	**$19.41**	$8.89	$3.47	$12.36	$0.81	$13.18	$0.19	$5.40	$0.63	$6.23
1200	**$13.17**	$5.90	$2.30	$8.20	$0.54	$8.74	$0.19	$3.60	$0.63	$4.43
900	**$10.03**	$4.39	$1.71	$6.10	$0.40	$6.50	$0.19	$2.70	$0.63	$3.53
600	**$7.01**	$2.95	$1.15	$4.11	$0.27	$4.38	$0.19	$1.80	$0.63	$2.63
400	**$5.17**	$2.12	$0.83	$2.95	$0.19	$3.14	$0.19	$1.20	$0.63	$2.03
300	**$4.02**	$1.54	$0.60	$2.15	$0.14	$2.29	$0.19	$0.90	$0.63	$1.73
200	**$3.01**	$1.07	$0.42	$1.48	$0.10	$1.58	$0.19	$0.60	$0.63	$1.43
100	**$2.00**	$0.59	$0.23	$0.82	$0.05	$0.87	$0.19	$0.30	$0.63	$1.13
50	**$1.51**	$0.36	$0.14	$0.49	$0.03	$0.53	$0.19	$0.15	$0.63	$0.98
25	**$1.23**	$0.22	$0.09	$0.31	$0.02	$0.33	$0.19	$0.08	$0.63	$0.90
18	**$1.13**	$0.17	$0.06	$0.23	$0.02	$0.25	$0.19	$0.05	$0.63	$0.88
12	**$1.10**	$0.16	$0.06	$0.22	$0.01	$0.23	$0.19	$0.04	$0.63	$0.86

A	In-Place Cost B = G + K	Material Cost C = Copper Cost Inputs Sheet	Exempt Material D = C * 39.02%	Subtotal Material and Exempt Costs E = C + D	Sales Tax F = E * 6.59%	Total Material G = E + F	Placement Cost H = $.19	Splice Cost I = $.003 * A	Engineering Cost J = $.63	Total Labor K = H + I + J
Buried Cable -24										
4200	**$50.05**	$24.72	$9.64	$34.36	$2.26	$36.62	$0.19	$12.60	$0.63	$13.43
3600	**$42.99**	$21.16	$8.26	$29.42	$1.94	$31.36	$0.19	$10.80	$0.63	$11.63
3000	**$36.56**	$18.04	$7.04	$25.08	$1.65	$26.74	$0.19	$9.00	$0.63	$9.83
2400	**$30.78**	$15.36	$5.99	$21.35	$1.41	$22.75	$0.19	$7.20	$0.63	$8.03
2100	**$28.24**	$14.25	$5.56	$19.80	$1.31	$21.11	$0.19	$6.30	$0.63	$7.13
1800	**$24.69**	$12.46	$4.86	$17.32	$1.14	$18.46	$0.19	$5.40	$0.63	$6.23
1200	**$16.29**	$8.01	$3.12	$11.13	$0.73	$11.86	$0.19	$3.60	$0.63	$4.43
900	**$12.31**	$5.93	$2.31	$8.24	$0.54	$8.79	$0.19	$2.70	$0.63	$3.53
600	**$8.42**	$3.91	$1.53	$5.43	$0.36	$5.79	$0.19	$1.80	$0.63	$2.63
400	**$6.19**	$2.81	$1.10	$3.91	$0.26	$4.16	$0.19	$1.20	$0.63	$2.03
300	**$4.92**	$2.15	$0.84	$2.99	$0.20	$3.19	$0.19	$0.90	$0.63	$1.73
200	**$3.53**	$1.42	$0.55	$1.98	$0.13	$2.11	$0.19	$0.60	$0.63	$1.43
100	**$2.26**	$0.77	$0.30	$1.07	$0.07	$1.14	$0.19	$0.30	$0.63	$1.13
50	**$1.62**	$0.43	$0.17	$0.60	$0.04	$0.64	$0.19	$0.15	$0.63	$0.98
25	**$1.30**	$0.27	$0.10	$0.37	$0.02	$0.39	$0.19	$0.08	$0.63	$0.90
18	**$1.18**	$0.20	$0.08	$0.28	$0.02	$0.30	$0.19	$0.05	$0.63	$0.88
12	**$1.11**	$0.17	$0.06	$0.23	$0.02	$0.25	$0.19	$0.04	$0.63	$0.86

A	In-Place Cost B = G + K	Material Cost C = Copper Cost Inputs Sheet	Exempt Material D = C * 25.05%	Subtotal Material and Exempt Costs E = C + D	Sales Tax F = E * 6.59%	Total Material G = E + F	Placement Cost H = $2.57	Splice Cost I = $.0039 * A	Engineering Cost J = $1.19	Total Labor K = H + I + J
Underground - 26										
4200	**$53.08**	$24.72	$6.19	$30.91	$2.04	$32.94	$2.57	$16.38	$1.19	$20.14
3600	**$46.01**	$21.16	$5.30	$26.46	$1.74	$28.21	$2.57	$14.04	$1.19	$17.80
3000	**$39.51**	$18.04	$4.52	$22.56	$1.49	$24.05	$2.57	$11.70	$1.19	$15.46
2400	**$29.23**	$12.09	$3.03	$15.12	$1.00	$16.12	$2.57	$9.36	$1.19	$13.12
2100	**$25.77**	$10.37	$2.60	$12.97	$0.85	$13.82	$2.57	$8.19	$1.19	$11.95
1800	**$22.63**	$8.89	$2.23	$11.12	$0.73	$11.85	$2.57	$7.02	$1.19	$10.78
1200	**$16.30**	$5.90	$1.48	$7.37	$0.49	$7.86	$2.57	$4.68	$1.19	$8.44
900	**$13.11**	$4.39	$1.10	$5.48	$0.36	$5.85	$2.57	$3.51	$1.19	$7.27
600	**$10.03**	$2.95	$0.74	$3.69	$0.24	$3.94	$2.57	$2.34	$1.19	$6.10
400	**$8.14**	$2.12	$0.53	$2.65	$0.17	$2.83	$2.57	$1.56	$1.19	$5.32
300	**$6.98**	$1.54	$0.39	$1.93	$0.13	$2.06	$2.57	$1.17	$1.19	$4.93
200	**$5.96**	$1.07	$0.27	$1.33	$0.09	$1.42	$2.57	$0.78	$1.19	$4.54
100	**$4.93**	$0.59	$0.15	$0.74	$0.05	$0.78	$2.57	$0.39	$1.19	$4.15
50	**$4.43**	$0.36	$0.09	$0.44	$0.03	$0.47	$2.57	$0.20	$1.19	$3.95
25	**$4.15**	$0.22	$0.06	$0.28	$0.02	$0.30	$2.57	$0.10	$1.19	$3.86
18	**$4.05**	$0.17	$0.04	$0.21	$0.01	$0.22	$2.57	$0.07	$1.19	$3.83
12	**$4.01**	$0.16	$0.04	$0.19	$0.01	$0.21	$2.57	$0.05	$1.19	$3.80

A	In-Place Cost B = G + K	Material Cost C = Copper Cost Inputs Sheet	Exempt Material D = C * 25.05%	Subtotal Material and Exempt Costs E = C + D	Sales Tax F = E * 6.59%	Total Material G = E + F	Placement Cost H = $2.57	Splice Cost I = $.0039 * A	Engineering Cost J = $1.19	Total Labor K = H + I + J
UG Cable -24										
4200	**$53.08**	$24.72	$6.19	$30.91	$2.04	$32.94	$2.57	$16.38	$1.19	$20.14
3600	**$46.01**	$21.16	$5.30	$26.46	$1.74	$28.21	$2.57	$14.04	$1.19	$17.80
3000	**$39.51**	$18.04	$4.52	$22.56	$1.49	$24.05	$2.57	$11.70	$1.19	$15.46
2400	**$33.59**	$15.36	$3.85	$19.20	$1.27	$20.47	$2.57	$9.36	$1.19	$13.12
2100	**$30.94**	$14.25	$3.57	$17.81	$1.17	$18.99	$2.57	$8.19	$1.19	$11.95
1800	**$27.38**	$12.46	$3.12	$15.58	$1.03	$16.60	$2.57	$7.02	$1.19	$10.78
1200	**$19.11**	$8.01	$2.01	$10.01	$0.66	$10.67	$2.57	$4.68	$1.19	$8.44
900	**$15.17**	$5.93	$1.49	$7.41	$0.49	$7.90	$2.57	$3.51	$1.19	$7.27
600	**$11.31**	$3.91	$0.98	$4.89	$0.32	$5.21	$2.57	$2.34	$1.19	$6.10
400	**$9.06**	$2.81	$0.70	$3.51	$0.23	$3.74	$2.57	$1.56	$1.19	$5.32
300	**$7.80**	$2.15	$0.54	$2.69	$0.18	$2.87	$2.57	$1.17	$1.19	$4.93
200	**$6.43**	$1.42	$0.36	$1.78	$0.12	$1.89	$2.57	$0.78	$1.19	$4.54
100	**$5.17**	$0.77	$0.19	$0.96	$0.06	$1.02	$2.57	$0.39	$1.19	$4.15
50	**$4.53**	$0.43	$0.11	$0.54	$0.04	$0.58	$2.57	$0.20	$1.19	$3.95
25	**$4.21**	$0.27	$0.07	$0.33	$0.02	$0.36	$2.57	$0.10	$1.19	$3.86
18	**$4.09**	$0.20	$0.05	$0.25	$0.02	$0.27	$2.57	$0.07	$1.19	$3.83
12	**$4.03**	$0.17	$0.04	$0.21	$0.01	$0.22	$2.57	$0.05	$1.19	$3.80

Copper Cable Cost

Copper Cable Material Cost
Cost Per Foot

Current Vendor Quote

	Aerial Cable		Buried		Underground	
	26	24	26	24	26	24
4200	$24.72	$24.72	$24.72	$24.72	$24.72	$24.72
3600	$21.16	$21.16	$21.16	$21.16	$21.16	$21.16
3000	$18.04	$18.04	$18.04	$18.04	$18.04	$18.04
2400	$12.09	$15.36	$12.09	$15.36	$12.09	$15.36
2100	$10.37	$14.25	$10.37	$14.25	$10.37	$14.25
1800	$8.89	$12.46	$8.89	$12.46	$8.89	$12.46
1200	$5.90	$8.01	$5.90	$8.01	$5.90	$8.01
900	$4.39	$5.93	$4.39	$5.93	$4.39	$5.93
600	$2.95	$3.91	$2.95	$3.91	$2.95	$3.91
400	$2.12	$2.81	$2.12	$2.81	$2.12	$2.81
300	$1.54	$2.15	$1.54	$2.15	$1.54	$2.15
200	$1.07	$1.42	$1.07	$1.42	$1.07	$1.42
100	$0.59	$0.77	$0.59	$0.77	$0.59	$0.77
50	$0.36	$0.43	$0.36	$0.43	$0.36	$0.43
25	$0.22	$0.27	$0.22	$0.27	$0.22	$0.27
18	$0.17	$0.20	$0.17	$0.20	$0.17	$0.20
12	$0.16	$0.17	$0.16	$0.17	$0.16	$0.17

Sales Tax	6.59%		6.59%		6.59%	

Installation Costs/Foot

Installation inputs for Buried and Undgd based on 1998 PACS data.
Installation inputs for Aerial based on 1998 Netcap data.

	Aerial Cable		Buried		Underground	
	26	24	26	24	26	24
4200	$1.93	$1.93	$0.19	$0.19	$2.57	$2.57
3600	$1.93	$1.93	$0.19	$0.19	$2.57	$2.57
3000	$1.93	$1.93	$0.19	$0.19	$2.57	$2.57
2400	$1.93	$1.93	$0.19	$0.19	$2.57	$2.57
2100	$1.93	$1.93	$0.19	$0.19	$2.57	$2.57
1800	$1.93	$1.93	$0.19	$0.19	$2.57	$2.57
1200	$1.93	$1.93	$0.19	$0.19	$2.57	$2.57
900	$1.93	$1.93	$0.19	$0.19	$2.57	$2.57
600	$1.93	$1.93	$0.19	$0.19	$2.57	$2.57
400	$1.38	$1.38	$0.19	$0.19	$2.57	$2.57
300	$1.38	$1.38	$0.19	$0.19	$2.57	$2.57
200	$1.38	$1.38	$0.19	$0.19	$2.57	$2.57
100	$1.00	$1.00	$0.19	$0.19	$2.57	$2.57
50	$1.00	$1.00	$0.19	$0.19	$2.57	$2.57
25	$1.00	$1.00	$0.19	$0.19	$2.57	$2.57
18	$1.00	$1.00	$0.19	$0.19	$2.57	$2.57
12	$1.00	$1.00	$0.19	$0.19	$2.57	$2.57

Copper Cable Cost

Splicing
Cost Per Foot

Calculated using Splicing inputs from 1998 PACS data.

	Aerial Cable		Buried		Underground	
	26	24	26	24	26	24
4200	$12.60	$12.60	$12.60	$12.60	$16.38	$16.38
3600	$10.80	$10.80	$10.80	$10.80	$14.04	$14.04
3000	$9.00	$9.00	$9.00	$9.00	$11.70	$11.70
2400	$7.20	$7.20	$7.20	$7.20	$9.36	$9.36
2100	$6.30	$6.30	$6.30	$6.30	$8.19	$8.19
1800	$5.40	$5.40	$5.40	$5.40	$7.02	$7.02
1200	$3.60	$3.60	$3.60	$3.60	$4.68	$4.68
900	$2.70	$2.70	$2.70	$2.70	$3.51	$3.51
600	$1.80	$1.80	$1.80	$1.80	$2.34	$2.34
400	$1.20	$1.20	$1.20	$1.20	$1.56	$1.56
300	$0.90	$0.90	$0.90	$0.90	$1.17	$1.17
200	$0.60	$0.60	$0.60	$0.60	$0.78	$0.78
100	$0.30	$0.30	$0.30	$0.30	$0.39	$0.39
50	$0.15	$0.15	$0.15	$0.15	$0.20	$0.20
25	$0.08	$0.08	$0.08	$0.08	$0.10	$0.10
18	$0.05	$0.05	$0.05	$0.05	$0.07	$0.07
12	$0.04	$0.04	$0.04	$0.04	$0.05	$0.05

Splicing Costs							
Cost Per Pair/foot	$0.0030	$0.0030	$0.0030	$0.0030	$0.0039	$0.0039	Splicing inputs based on 1998 PACS data.
Engineering Costs							
Engineering Cost per Foot	$0.80	$0.80	$0.63	$0.63	$1.19	$1.19	Engineering inputs based on 1998 PACS data.

A	In-Place Cost B = G + K	Material Cost C = Fiber Inputs Sheet	Exempt Material D = C * 4.87%	Subtotal Material and Exempt Costs E = C + D	Sales Tax F = E * 6.59%	Total Material G = E + F	Placement Cost H = $1.24	Splice Cost I = $.0021 * A	Engineering Cost J = $.31	Total Labor K = H + I + J
Aerial Fiber										
288	**$7.89**	$5.13	$0.25	$5.38	$0.35	$5.73	$1.24	$0.60	$0.31	$2.15
144	**$4.78**	$2.62	$0.13	$2.75	$0.18	$2.93	$1.24	$0.30	$0.31	$1.85
96	**$3.74**	$1.78	$0.09	$1.86	$0.12	$1.99	$1.24	$0.20	$0.31	$1.75
72	**$3.54**	$1.64	$0.08	$1.72	$0.11	$1.84	$1.24	$0.15	$0.31	$1.70
60	**$2.98**	$1.17	$0.06	$1.22	$0.08	$1.30	$1.24	$0.13	$0.31	$1.68
48	**$2.85**	$1.08	$0.05	$1.13	$0.07	$1.20	$1.24	$0.10	$0.31	$1.65
36	**$2.62**	$0.89	$0.04	$0.93	$0.06	$0.99	$1.24	$0.08	$0.31	$1.62
24	**$2.27**	$0.60	$0.03	$0.63	$0.04	$0.67	$1.24	$0.05	$0.31	$1.60
18	**$2.12**	$0.48	$0.02	$0.50	$0.03	$0.53	$1.24	$0.04	$0.31	$1.59
12	**$2.05**	$0.42	$0.02	$0.44	$0.03	$0.47	$1.24	$0.03	$0.31	$1.57

A	In-Place Cost B = G + K	Material Cost C = Fiber Inputs Sheet	Exempt Material D = C * 4.87%	Subtotal Material and Exempt Costs E = C + D	Sales Tax F = E * 6.59%	Total Material G = E + F	Placement Cost H = $1.24	Splice Cost I = $.0021 * A	Engineering Cost J = $.31	Total Labor K = H + I + J
Buried Fiber										
288	**$8.48**	$5.45	$0.90	$6.35	$0.42	$6.76	$0.21	$0.92	$0.58	$1.71
144	**$4.78**	$2.84	$0.47	$3.31	$0.22	$3.53	$0.21	$0.46	$0.58	$1.25
96	**$3.52**	$1.95	$0.32	$2.27	$0.15	$2.42	$0.21	$0.31	$0.58	$1.10
72	**$2.87**	$1.49	$0.24	$1.73	$0.11	$1.85	$0.21	$0.23	$0.58	$1.02
60	**$2.61**	$1.31	$0.22	$1.53	$0.10	$1.63	$0.21	$0.19	$0.58	$0.98
48	**$2.24**	$1.04	$0.17	$1.22	$0.08	$1.30	$0.21	$0.15	$0.58	$0.94
36	**$1.96**	$0.85	$0.14	$1.00	$0.07	$1.06	$0.21	$0.12	$0.58	$0.90
24	**$1.68**	$0.66	$0.11	$0.76	$0.05	$0.81	$0.21	$0.08	$0.58	$0.87
18	**$1.55**	$0.57	$0.09	$0.66	$0.04	$0.70	$0.21	$0.06	$0.58	$0.85
12	**$1.39**	$0.46	$0.07	$0.53	$0.03	$0.56	$0.21	$0.04	$0.58	$0.83

Note: Placement cost for buried fiber does not include structure.

	In-Place Cost	Material Cost	Exempt Material	Subtotal Material and Exempt Costs	Sales Tax	Total Material	Placement Cost	Splice Cost	Engineering Cost	Total Labor
A	**B = G + K**	**C = Fiber Inputs Sheet**	**D = C * 4.87%**	**E = C + D**	**F = E * 6.59%**	**G = E + F**	**H = $1.24**	**I = $.0021 * A**	**J = $.31**	**K = H + I + J**
Underground Fiber										
288	**$11.27**	$5.13	$0.59	$5.72	$0.38	$6.10	$2.12	$2.33	$0.71	$5.17
144	**$7.12**	$2.62	$0.30	$2.92	$0.19	$3.12	$2.12	$1.17	$0.71	$4.00
96	**$5.72**	$1.78	$0.21	$1.98	$0.13	$2.11	$2.12	$0.78	$0.71	$3.61
72	**$5.37**	$1.64	$0.19	$1.83	$0.12	$1.95	$2.12	$0.58	$0.71	$3.42
60	**$4.71**	$1.17	$0.13	$1.30	$0.09	$1.39	$2.12	$0.49	$0.71	$3.32
48	**$4.50**	$1.08	$0.12	$1.20	$0.08	$1.28	$2.12	$0.39	$0.71	$3.22
36	**$4.18**	$0.89	$0.10	$0.99	$0.07	$1.06	$2.12	$0.29	$0.71	$3.13
24	**$3.74**	$0.60	$0.07	$0.67	$0.04	$0.71	$2.12	$0.19	$0.71	$3.03
18	**$3.55**	$0.48	$0.06	$0.53	$0.04	$0.57	$2.12	$0.15	$0.71	$2.98
12	**$3.43**	$0.42	$0.05	$0.47	$0.03	$0.50	$2.12	$0.10	$0.71	$2.93

Fiber Cost Model

			AE $'s/ft	Bu $'s Ft	Ug $'s/Ft	Current Vendor Quote
Fiber Material Cost						
Cost Per Foot						
		288	$5.13	$5.45	$5.13	
		144	$2.62	$2.84	$2.62	
		96	$1.78	$1.95	$1.78	
		72	$1.64	$1.49	$1.64	
		60	$1.17	$1.31	$1.17	
		48	$1.08	$1.04	$1.08	
		36	$0.89	$0.85	$0.89	
		24	$0.60	$0.66	$0.60	
		18	$0.48	$0.57	$0.48	
		12	$0.42	$0.46	$0.42	
	Sales Tax		6.59%	6.59%	6.59%	
Installation Costs						
	Total Placement Cost/Foot		$1.24	$0.21	$2.12	Installation inputs based on 1998 PACS data.
Splicing Costs	Splicing cost per fiber per foot		$0.0021	$0.0032	$0.0081	Splicing inputs based on 1998 PACS data.
Engineering Costs	Engineering Cost/Foot		$0.31	$0.58	$0.71	Engineering inputs based on 1998 PACS data.

Data Entry

State	Florida					
Study Date	April 17, 2000					
	Ae Copper	Bu Copper	G Copper	Ae Fiber	Bu Fiber	Ug Fiber
Exempt Material	32.68%	39.02%	25.05%	4.87%	16.42%	11.57%
Sales Tax	6.59%					

Cost study input.

Sprint Florida, Inc.

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Workpapers 2

Loading Element	Plant Type	Expense Amount	Calculation Base	Loading Factor
Exempt Material	Aerial Cable	61,662	188,669	32.68%
	Underground Cable	72,414	289,063	25.05%
	Buried Cable	3,782,499	9,694,411	39.02%
	Aerial Fiber	3,910	80,357	4.87%
	Underground Fiber	112,505	972,538	11.57%
	Buried Fiber	525,019	3,197,486	16.42%

Calculation = Exempt Material $ / (Cable Material $ + Other Reportable Material $)

Loading Element	Plant Type	Expense Amount	Calculation Base	Loading Factor
Splicing	Aerial Cable	756,669	115,303,983	0.0066 *
	Underground Cable	1,283,791	330,722,667	0.0039
	Buried Cable	1,002,993	336,895,348	0.0030
	Aerial Fiber	46,562	22,158,797	0.0021
	Underground Fiber	192,058	23,775,515	0.0081
	Buried Fiber	81,810	25,552,021	0.0032

Calculation = Splicing Labor $ / Pair-feet of Cable Placed

- Buried Cable Splicing factor of .0030 used in cost study.

Loading Element	Plant Type	Expense Amount	Calculation Base	Loading Factor
Engineering	Aerial Cable	766,584	960,927	0.7978
	Underground Cable	638,027	535,885	1.1906
	Buried Cable	1,607,831	2,534,979	0.6343
	Aerial Fiber	130,762	423,702	0.3086
	Underground Fiber	237,170	334,259	0.7095
	Buried Fiber	282,375	484,222	0.5832

Calculation = Engineering Labor $ / Sheath-feet of Cable Placed

Loading Element	Plant Type	Expense Amount	Calculation Base	Loading Factor
Placement	Aerial Cable	1,766,121	960,927	1.8379
	Underground Cable	1,375,644	535,885	2.5671
	Buried Cable	492,755	2,534,979	0.1944
	Aerial Fiber	525,596	423,702	1.2405
	Underground Fiber	710,141	334,259	2.1245
	Buried Fiber	99,476	484,222	0.2054

Calculation = Placement Labor $ / Sheath-feet of Cable Placed

Sprint Florida, Inc.

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Workpapers 3

Outdoor SAI Investment

A	B	C	D	E	F	G	H	I	J	K	L
	Terminal or Cross connect								Cable		
SAI Size	Number Installed	Cabinet Material Code	Cabinet Material Cost	Template Material Code	Template Cost	Frame Material Code	Frame Cost	Contract Labor for Pad Cost	Number Installed	Cable Material Code	Cable Material Cost Per 100 ft
25	1	772586	$1,152.49	779241	$19.99	779234	$59.96	$2,500	1	274234	$25.54
50	1	772586	$1,152.49	779241	$19.99	779234	$59.96	$2,500	1	274235	$42.19
100	1	772586	$1,152.49	779241	$19.99	779234	$59.96	$2,500	1	274236	$97.71
200	1	772586	$1,152.49	779241	$19.99	779234	$59.96	$2,500	1	274237	$157.66
300	1	772425	$1,264.63	779241	$19.99	779234	$59.96	$2,500	1	274238	$207.63
400	1	772425	$1,264.63	779241	$19.99	779234	$59.96	$2,500	1	274239	$276.46
600	1	772426	$1,755.38	779242	$21.10	779235	$64.40	$5,000	1	274241	$387.49
900	1	772427	$2,157.31	779248	$22.21	779247	$67.73	$5,000	1	274242	$582.91
1200	1	772428	$2,528.15	779248	$22.21	779247	$67.73	$5,000	1	274243	$772.77
1800	1	772709	$3,857.18	779248	$22.21	779247	$67.73	$5,000	1	274245	$1,209.12
2100	1	772594	$4,314.63	779248	$22.21	779247	$67.73	$7,500	1	274246	$1,400.09
2400	1	772595	$4,699.90	779248	$22.21	779247	$67.73	$7,500	1	274247	$1,609.94
3000	1	772597	$6,697.33	779248	$22.21	779247	$67.73	$7,500	1	262306	$1,345.68
3600	1	772597	$6,697.33	779248	$22.21	779247	$67.73	$7,500	1	262347	$1,734.29
4200	1	772598	$10,567.84	779248	$22.21	779247	$67.73	$7,500	2	274246	$2,800.18

Outdoor SAI Investment

A	M = D+F+H+L	N = M*0.0659	O = M + N	P	Q	R	S	T	U
	Subtotal Material Costs			Placing			Splcing		
SAI Size	Subtotal Material Costs	Sales Tax	Loaded Material Costs	Hours to Place/Man	Number of Men	Total Manhours to Place	Hours to Splice/Man	Number of Men	Total Manhours to Splice
		6.59%							
25	$1,257.97	$82.90	$1,341	1	2	2	1	1	1
50	$1,274.62	$84.00	$1,359	1	2	2	1	1	1
100	$1,330.14	$87.66	$1,418	1	2	2	1	1	1
200	$1,390.10	$91.61	$1,482	2	2	4	2	1	2
300	$1,552.20	$102.29	$1,654	2	2	4	3	1	3
400	$1,621.04	$106.83	$1,728	2	2	4	4	1	4
600	$2,228.37	$146.85	$2,375	2	2	4	6	1	6
900	$2,830.15	$186.51	$3,017	2	3	6	9	1	9
1200	$3,390.86	$223.46	$3,614	2	3	6	12	1	12
1800	$5,156.23	$339.80	$5,496	4	3	12	18	1	18
2100	$5,804.65	$382.53	$6,187	4	3	12	21	1	21
2400	$6,399.77	$421.74	$6,822	4	3	12	24	1	24
3000	$8,132.95	$535.96	$8,669	4	3	12	30	1	30
3600	$8,521.55	$561.57	$9,083	4	3	12	36	1	36
4200	$13,457.95	$886.88	$14,345	4	3	12	42	1	42

Outdoor SAI Investment

A	V	W	X	Y = R+U+X	Z	AA = Y * Z	BB = I	CC = AA + BB	DD = O+CC
	-------------- Traveling ---------------								
SAI Size	Travel Time/Man (Hours)	Number of Men	Total Manhours to Travel	Total Labor Hours	Loaded Labor Rate-FL	Subtotal Company Labor Cost	Subtotal Contract Labor Cost	Total Labor Cost	Total Cost Current Model
25	1	3	3	6	$51.97	$311.82	$2,500.00	$2,811.82	$4,152.69
50	1	3	3	6	$51.97	$311.82	$2,500.00	$2,811.82	$4,170.44
100	1	3	3	6	$51.97	$311.82	$2,500.00	$2,811.82	$4,229.62
200	1	3	3	9	$51.97	$467.73	$2,500.00	$2,967.73	$4,449.43
300	1	3	3	10	$51.97	$519.70	$2,500.00	$3,019.70	$4,674.19
400	1	3	3	11	$51.97	$571.67	$2,500.00	$3,071.67	$4,799.53
600	1	3	3	13	$51.97	$675.61	$5,000.00	$5,675.61	$8,050.83
900	1	4	4	19	$51.97	$987.43	$5,000.00	$5,987.43	$9,004.09
1200	1	4	4	22	$51.97	$1,143.34	$5,000.00	$6,143.34	$9,757.65
1800	1	4	4	34	$51.97	$1,766.98	$5,000.00	$6,766.98	$12,263.01
2100	2	4	8	41	$51.97	$2,130.77	$7,500.00	$9,630.77	$15,817.94
2400	2	4	8	44	$51.97	$2,286.68	$7,500.00	$9,786.68	$16,608.19
3000	2	4	8	50	$51.97	$2,598.50	$7,500.00	$10,098.50	$18,767.41
3600	2	4	8	56	$51.97	$2,910.32	$7,500.00	$10,410.32	$19,493.44
4200	2	4	8	62	$51.97	$3,222.14	$7,500.00	$10,722.14	$25,066.96

Indoor SAI Investment

A	B	C	D	E=B*D	F	G	H=B*G
	Terminal/MDF						
SAI Pair Sizes	Number Installed	Terminal with 40' Tip Cables Material Code	Material Cost	Total Terminal Material Cost	Wall Mount Bracket	Material Cost	Total Bracket Material Cost
25	1	027863	$136.57	$136.57	484691	$19.46	$19.46
50	1	027865	$214.29	$214.29	484691	$19.46	$19.46
100	1	027867	$406.37	$406.37	484691	$19.46	$19.46
200	2	027867	$406.37	$812.74	484691	$19.46	$38.93
300	3	027867	$406.37	$1,219.11	484691	$19.46	$58.39
400	4	027867	$406.37	$1,625.48	484691	$19.46	$77.85
600	6	002705	$352.91	$2,117.45	484691	$19.46	$116.78
900	9	002705	$352.91	$3,176.18	484691	$19.46	$175.17
1200	12	002705	$352.91	$4,234.91	484691	$19.46	$233.56
1800	18	002705	$352.91	$6,352.36	484691	$19.46	$350.34
2100	21	002705	$352.91	$7,411.09	484691	$19.46	$408.73
2400	24	002705	$352.91	$8,469.81	484691	$19.46	$467.13
3000	30	002705	$352.91	$10,587.27	484691	$19.46	$583.91
3600	36	002705	$352.91	$12,704.72	484691	$19.46	$700.69
4200	42	002705	$352.91	$14,822.17	484691	$19.46	$817.47

Other Material Cost Calculations

Mat Code				
563254	5-Pin Protection Module	$2.89		
771141	66 Block	$3.73	(50 pair capacity)	
201564	Tie Cable	$0.69	x 25 feet =	$17.21

Indoor SAI Investment

A	I	J=I*$2.89	K=E+H+J	L	M	N	O	P	Q
	Tip Splice and Case								
SAI Pair Sizes	Number Installed	5 Pin Protect Module (Material Code 563254 Cost=$2.89)	Total Terminal and Protection Cost	Time to Install and Splice Building Terminal	Number Installed	Material Code	Material Cost	Splicing	Time to Install Splice Case(Hours)
25	25	$72.17	$228.20	1.0	-	N\A	$0.00	0.0	0.0
50	50	$144.34	$378.09	2.0	-	N\A	$0.00	0.0	0.0
100	100	$288.68	$714.51	3.0	-	N\A	$0.00	0.0	0.0
200	200	$577.36	$1,429.02	2.0	1	151902	$201.53	1.0	2.0
300	300	$866.03	$2,143.53	3.0	1	151903	$297.63	1.5	2.0
400	400	$1,154.71	$2,858.05	4.0	1	151903	$297.63	2.0	2.0
600	600	$1,732.07	$3,966.30	6.0	1	151907	$385.17	3.0	3.0
900	900	$2,598.10	$5,949.45	9.0	1	151907	$385.17	4.5	3.0
1200	1200	$3,464.14	$7,932.60	12.0	1	151907	$385.17	6.0	3.0
1800	1800	$5,196.20	$11,898.91	18.0	1	151907	$385.17	9.0	4.0
2100	2100	$6,062.24	$13,882.06	21.0	1	151907	$385.17	10.5	4.0
2400	2400	$6,928.27	$15,865.21	24.0	1	151905	$517.99	12.0	4.0
3000	3000	$8,660.34	$19,831.51	30.0	1	151939	$619.97	15.0	4.0
3600	3600	$10,392.41	$23,797.81	36.0	1	151939	$619.97	18.0	4.0
4200	4200	$12,124.48	$27,764.12	42.0	2	151939	$1,239.94	21.0	8.0

Indoor SAI Investment

A	R	S	T=S*$17.21	U = (A/25)*1	V	W	X=W*$3.73	Y
	Tie Cable				66 Block\ D-mark			
SAI Pair Sizes	Material Code	Number Installed	Material Cost per 25 feet $17.21	Time to Install and Splice at MDF (Hours)	Material Code	Number Installed	Material Cost per Block Terminal $3.73	Time to Install and Splice (Hours)
25	N\A	0	$0.00	0	N\A	0	$0.00	0
50	N\A	0	$0.00	0	N\A	0	$0.00	0
100	N\A	0	$0.00	0	N\A	0	$0.00	0
200	201564	2	$34.42	8.0	771141	4	$14.92	4.0
300	201564	3	$51.63	12.0	771141	6	$22.38	6.0
400	201564	4	$68.84	16.0	771141	8	$29.84	8.0
600	201564	6	$103.26	24.0	771141	12	$44.77	12.0
900	201564	9	$154.89	36.0	771141	18	$67.15	18.0
1200	201564	12	$206.52	48.0	771141	24	$89.53	24.0
1800	201564	18	$309.77	72.0	771141	36	$134.30	36.0
2100	201564	21	$361.40	84.0	771141	42	$156.69	42.0
2400	201564	24	$413.03	96.0	771141	48	$179.07	48.0
3000	201564	30	$516.29	120.0	771141	60	$223.84	60.0
3600	201564	36	$619.55	144.0	771141	72	$268.60	72.0
4200	201564	42	$722.81	168.0	771141	84	$313.37	84.0

Indoor SAI Investment

A	Z	AA	BB = Z*AA	CC=K+O+T+X	DD = CC*(1+0.0659)	EE=L+P+Q+U +X+BB	FF	GG = EE+FF	HH = DD+GG
	Traveling			Grand Totals					
				Material		Labor			Total
SAI Pair Sizes	Travel Time per day/Man (1Hr per trip)	Number of Men	Total Manhours to Travel	Total Material Costs	Total Material Cost with Supply Expense and Tax	Total Labor Hours	Loaded Labor Rate	Total Labor Dollars	Grand Total Material and Labor
25	1	1	1	$228.20	$243.24	2.0	$51.97	$103.94	$347.18
50	1	1	1	$378.09	$403.01	3.0	$51.97	$155.91	$558.92
100	1	1	1	$714.51	$761.60	4.0	$51.97	$207.88	$969.48
200	1	1	1	$1,679.90	$1,790.60	18.0	$51.97	$935.46	$2,726.06
300	1	1	1	$2,515.17	$2,680.92	25.5	$51.97	$1,325.24	$4,006.16
400	1	2	2	$3,254.36	$3,468.82	34.0	$51.97	$1,766.98	$5,235.80
600	3	2	6	$4,499.50	$4,796.02	54.0	$51.97	$2,806.38	$7,602.40
900	5	2	10	$6,556.67	$6,988.75	80.5	$51.97	$4,183.59	$11,172.33
1200	6	2	12	$8,613.83	$9,181.48	105.0	$51.97	$5,456.85	$14,638.33
1800	9	2	18	$12,728.16	$13,566.94	157.0	$51.97	$8,159.29	$21,726.23
2100	11	2	22	$14,785.32	$15,759.67	183.5	$51.97	$9,536.50	$25,296.17
2400	12	2	24	$16,975.30	$18,093.97	208.0	$51.97	$10,809.76	$28,903.73
3000	15	2	30	$21,191.61	$22,588.13	259.0	$51.97	$13,460.23	$36,048.36
3600	18	2	36	$25,305.94	$26,973.60	310.0	$51.97	$16,110.70	$43,084.30
4200	14	3	42	$30,040.23	$32,019.88	365.0	$51.97	$18,969.05	$50,988.93

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Drop Terminal Investment

A	B = input from Drop Terminal Loadings	C = input from Drop Terminal Loadings	D = B + C	E = input	F = input	G = E * F	H = D + G
	Block Loaded Material Cost	Terminal Loaded Material Cost	Total Equipment Cost	Hours	Loaded Labor Rate	Total Labor Cost	Total
Aerial Drop Terminal Costs							
6 Pair	$6.75	$38.71	$45.46	0.50	$51.97	$25.99	$71.45
12 Pair	$13.07	$38.71	$51.78	0.75	$51.97	$38.98	$90.75
25 Pair	$28.11	$70.95	$99.06	1.25	$51.97	$64.96	$164.02
Buried Drop Terminal Costs							
6 Pair	$6.75	$36.01	$42.75	0.25	$51.97	$12.99	$55.74
12 Pair	$13.07	$36.01	$49.07	0.50	$51.97	$25.99	$75.06
25 Pair	$28.11	$36.01	$64.11	1.00	$51.97	$51.97	$116.08

Drop Terminal Loadings

	Block Material Code	A Material Cost	B = A*.0659 Sales Tax	C Loaded Material Cost
Aerial Drop Block Costs				
6 Pair		$6.33	$0.42	$6.75
12 Pair		$12.26	$0.81	$13.07
25 Pair	027669	$26.37	$1.74	$28.11
Buried Drop Block Costs				
6 Pair	027665	$6.33	$0.42	$6.75
12 Pair	027667	$12.26	$0.81	$13.07
25 Pair	027670	$26.37	$1.74	$28.11

	Terminal Material Code	A Material Cost	B = A*.0659 Sales Tax	C Loaded Material Cost Aerial	D Ladder & Shroud	E = C + D Loaded Material Cost Buried
Buried Ladder and Shroud						
Ladder	153711	$0.83	$0.05		$0.88	
Shroud	153707	$3.36	$0.22		$3.58	
					$4.47	
Aerial Drop Terminal Costs						
6 Pair	151477	$36.32	$2.39	$38.71		
12 Pair	151477	$36.32	$2.39	$38.71		
25 Pair	151868	$66.56	$4.39	$70.95		
Buried Drop Terminal Costs						
6 Pair	153701	$29.59	$1.95	$31.54	$4.47	$36.01
12 Pair	153701	$29.59	$1.95	$31.54	$4.47	$36.01
25 Pair	153701	$29.59	$1.95	$31.54	$4.47	$36.01

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Workpapers 5

Summary of Drop Inputs

State	Buried						
	Drop Length	Rate		Cost to Install	Labor Cost/ft.	Material Cost/ft.	Labor & Material
FL	150	Netcap Cost =		$74.59	$0.50	$0.11	$0.62

State	Aerial						
	Drop Length	Rate		Time to Install (hrs.)	Labor Cost/ft.	Material Cost/ft.	Labor & Material
FL	150	$51.97	(S)	$1.50	$0.52	$0.11	$0.63

Notes: (S) = Sprint
(C) = Contract

Buried Drop Input

			A	B = A * 0.0659	C = A + B	D	E = C + D	F	G = sum of (E * F)
Material	Number of Pairs	Material Code	Material Cost	Sales Tax 6.59%	Loaded Cost per Ft.	Labor to Install	Total Cost	Weighting*	Weighted Cost/Ft.
Residential	4	362054	$0.10	$0.01	$0.11	$0.50	$0.61	68.98%	$0.42
Business	6	362061	$0.12	$0.01	$0.13	$0.50	$0.63	31.02%	$0.20
									$0.62

** Based on % Bus and % Res to Total in BCPM Lines File*

Labor

Buried drop is installed 100% by contractors.

Cost to install $74.59 / 150 = $0.50

Buried Labor based on Netcap

Average Drop Length = 179

Labor Code	Activity	A	B	C=A*B
617030	Place 1- 150			$51.32
617031	Place > 150 ft. cost/foot	29	$0.31	$8.99
617032	Trench previously opened	65.41%	$0.33	$0.22
617058	Cutover	100.00%	$12.74	$12.74
617060	Splicing	12.07%	$10.95	$1.32
617056	Sidewalk Bore	100.00%	$5.40	$5.40
				$74.59

Aerial Drop

			A	B = A * 0.0659	E = C + D	F	G = E + F	H	I =sum of (G * H)
Material	Number of Pairs	Material Code	Material Cost	Sales Tax 6.59%	Loaded Cost per Ft.	Labor to Install	Total Cost	Weighting*	Weighted Cost/Ft.
Residential	2	330055	$0.04	$0.0029	$0.05	$0.52	$0.57	68.98%	$0.40
Business	6	330046	$0.20	$0.0132	$0.21	$0.52	$0.73	31.02%	$0.23
									$0.63

* Based on % Bus and % Res to Total in BCPM Lines File

Labor

Estimate to install: 1.5 hours

Sprint Labor Rate: $51.97

Cost to install $77.96 / 150 = $0.52

	Loops	
Wire Center	Residence	Single Business
ALFRFLXA	1,568	113
ALSPFLXA	31,538	24,297
ALVAFLXA	1,488	237
APPKFLXA	26,508	7,362
ARCDFLXA	11,403	3,583
ASTRFLXA	1,302	225
AVPKFLXA	8,801	2,962
BAKRFLXA	2,495	268
BCGRFLXA	2,281	674
BLVWFLXA	19,045	3,696
BNFLFLXA	3,790	1,371
BNSPFLXA	34,017	9,607
BSHNFLXA	10,264	2,149
BVHLFLXA	11,408	3,427
BWLGFLXA	1,357	315
CFVLFLXA	5,850	1,410
CHLKFLXA	1,293	77
CHSWFLXA	4,086	288
CLMTFLXA	16,815	4,022
CLTNFLXA	6,811	2,489
CPCRFLXA	28,616	5,572
CPCRFLXB	22,755	6,316
CPHZFLXA	10,817	1,205
CRRVFLXA	10,812	4,982
CRVWFLXA	13,191	5,367
CSLBFLXA	18,438	2,935
CTDLFLXA	1,210	187
CYLKFLXA	28,930	12,109
CYLKFLXB	8,726	4,820
DDCYFLXA	10,013	3,219
DESTFLXA	15,525	7,993
DFSPFLXA	6,528	2,647
ESTSFLXA	15,703	3,950
EVRGFLXA	1,202	484
FRPTFLXA	2,616	457
FTMBFLXA	9,978	2,276
FTMDFLXA	2,713	609
FTMYFLXA	9,791	13,788
FTMYFLXB	12,616	3,065
FTMYFLXC	18,446	19,809
FTWBFLXA	12,164	10,964
FTWBFLXB	15,497	6,922
FTWBFLXC	4,074	547
GDRGFLXA	2,124	170
GLDLFLXA	832	33
GLGCFLXA	27,875	4,640
GLRDFLXA	36,907	12,247

Wire Center	Loops Residence	Single Business
GNVLFLXA	1,192	221
GNWDFLXA	793	61
GVLDFLXA	4,535	1,123
HMSPFLXA	9,061	1,665
HOWYFLXA	1,478	341
IMKLFLXA	4,548	2,490
INVRFLXA	23,739	5,417
IONAFLXA	12,652	2,389
KGLKFLXA	281	83
KNVLFLXA	594	157
KSSMFLXA	34,039	14,569
KSSMFLXB	14,690	9,820
KSSMFLXD	13,137	1,365
LBLLFLXA	7,036	2,379
LDLKFLXA	19,233	2,546
LEE_FLXA	1,043	130
LHACFLXA	14,789	2,574
LKBRFLXA	32,029	14,461
LKHLFLXA	1,810	399
LKPCFLXA	10,798	2,690
LSBGFLXA	25,100	10,653
LWTYFLXA	1,045	155
MALNFLXA	1,174	171
MDSNFLXA	3,270	1,895
MNTIFLXA	5,462	1,517
MOISFLXA	18,958	4,241
MRDCFLXA	3,944	1,447
MRHNFLXA	2,319	648
MRNNFLXA	6,360	5,123
MTDRFLXA	12,687	3,626
MTLDFLTC		1,478
MTLDFLXA	2,504	10,972
MTVRFLXA	1,528	230
NFMYFLXA	13,704	3,799
NFMYFLXB	16,758	1,437
NNPLFLXA	42,367	14,818
NPLSFLXC	30,345	6,545
NPLSFLXD	34,696	26,620
OCALFLXA	32,797	26,524
OCALFLXB	24,478	7,264
OCALFLXC	5,087	1,332
OCALFLXJ	3,872	529
OCNFFLXA	5,546	438
OKCBFLXA	18,355	5,060
OKLWFLXA	3,989	328
ORCYFLXA	9,538	4,155
ORCYFLXC	13,847	1,160

Wire Center	Loops Residence	Single Business
PANCFLXA	912	201
PNGRFLXA	21,671	6,214
PNISFLXA	8,245	1,087
PNLNFLXA	1,145	136
PTCTFLXA	39,581	11,150
RYHLFLXA	1,508	51
SBNGFLXA	20,998	7,738
SCPKFLXA	9,504	2,803
SGBHFLXA	4,319	1,169
SHLMFLXA	7,650	2,245
SLHLFLXA	4,663	770
SNANFLXA	3,056	775
SNDSFLXA	1,708	275
SNISFLXA	9,540	2,926
SNRSFLXA	4,279	1,364
SPCPFLXA	1,038	115
SSPRFLXA	1,520	146
STCDFLXA	18,935	3,310
STMKFLXA	505	232
STRKFLXA	5,125	2,253
SVSPFLXA	4,851	833
SVSSFLXA	6,576	776
TLCHFLXA	3,606	350
TLHSFLXA	12,360	62,534
TLHSFLXB	17,364	8,671
TLHSFLXC	19,828	7,046
TLHSFLXD	30,784	12,670
TLHSFLXE	3	12,110
TLHSFLXF	21,989	4,052
TLHSFLXG	4,447	388
TLHSFLXH	9,798	1,832
TVRSFLXA	11,856	3,823
UMTLFLXA	7,312	1,012
VLPRFLXA	16,310	5,350
WCHLFLXA	4,924	2,324
WLSTFLXA	5,378	1,007
WLWDFLXA	6,705	2,168
WNDRFLXA	8,483	1,302
WNGRFLXA	17,598	6,521
WNPKFLXA	24,878	24,895
WSTVFLXA	798	91
ZLSPFLXA	2,113	426
Total Switched Lines	1,501,289	618,071
Special Access Lines		56,927
Total Lines	1,501,289	674,998
Weighting	**68.98%**	**31.02%**

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Workpapers 6

Florida LARGE NGDLC (Universal)

COT Misc. Equip. (15 RT's/COT)

Description	Quantity	Ext.Cost
Rack	1	
Fuses and #6 Power Cable	1	
96 Fiber Patch Panel	1	
Fbr Jmpr 15 Mtr (FOT-ptch pnl)	4	
DSX-1 Panel 84 Port	1	
Cabling 500' (for DS1's)	1	
Total Material		$5,812.42
Sales Tax		$383.04
COT Misc. Equip.Total		$6,195.46
COT DLC		
DISC*S -Com-01 (1 shelf/672)	1	
COT Channel Shelves	4	
LIU (384 Lns)	1	
LSU (384 Lns)	6	
DISC*S -Com-01 (1 shelf /672)	1	
COT Channel Shelves	7	
LIU (672 Lns)	2	
LSU (672 Lns)	5	
DISC*S -Com-01 (1 shelf/672)	2	
COT Channel Shelves	14	
LIU (1344 Lns)	3	
LSU (1344 Lns)	4	
DISC*S -Com-01 (1 shelf/672)	3	
COT Channel Shelves	21	
LIU (2016 Lns)	4	
LSU (2016 Lns)	3	
DISC*S -COT-01	1	
Module for Supervisory Link	1	
DISC*S Dual Ch Unit DCU-10	1	
DISC*S Coin SCU-12 (single)	1	
Terminal Block for Frame 8X24	1	
Total Material		$17,003.33
Sales Tax		$1,120.52
Labor	1	$6,533.88
COT DLC Total (384 Lines)		$24,657.73

OC3 FOT (COT)

Description	Quantity	Ext.Cost
Alcatel 1603/12-COT-01 (includes 7'x23" rack)	1	
Heat Baffle w/ FO storage for OC3	1	
DS-1 connectorized I/O Panel	3	
DSX-1 Cabling Kit	3	
Common Cards w/ Optics Com-01 OC3	1	
VTG102 (4-DS1's /Crd) (384 Lns)	2	
VTG102 (4-DS1's /Crd) (672 Lns)	3	
VTG102 (4-DS1's /Crd) (1344 Lns)	4	
VTG102 (4-DS1's /Crd) (2016 Lns)	5	
Network Element Processor	1	
DS1 floating drop Group interface DMI102	2	
Total Material		$18,682.52
Sales Tax		$1,231.18
Eng. Labor COE (14hrs@$55.89/hr)		$782.46
Turnup Labor (Plant COE 19hrs@$43.86/hr)		$833.34
Labor	1	$1,615.80
COT FOT Total (384 Lns)		$21,529.50
Total Material		$19,132.19
Sales Tax		$1,260.81
Eng. Labor COE (14hrs@$55.89/hr)		$782.46
Turnup Labor (Plant COE 19hrs@$43.86/hr)		$833.34
Labor	1	$1,615.80
COT FOT Total (672 Lns)		$22,008.80
Total Material		$19,581.86
Sales Tax		$1,290.44
Eng. Labor COE (14hrs@$55.89/hr)		$782.46
Turnup Labor (Plant COE 19hrs@$43.86/hr)		$833.34
Labor	1	$1,615.80
COT FOT Total (1344 Lns)		$22,488.11
Total Material		$20,031.53
Sales Tax		$1,320.08
Eng. Labor COE (14hrs@$55.89/hr)		$782.46
Turnup Labor (Plant COE 19hrs@$43.86/hr)		$833.34
Labor	1	$1,615.80
COT FOT Total (2016 Lns)		$22,967.41

Florida LARGE NGDLC (Universal)

Total Material		$20,907.86
Sales Tax		$1,377.83
Labor	1	$6,533.88
COT DLC Total (762 Lines)		$28,819.57
Total Material		$34,452.32
Sales Tax		$2,270.41
Labor	1	$6,533.88
COT DLC Total (1344 Lines)		$43,256.61
Total Material		$47,996.78
Sales Tax		$3,162.99
Labor	1	$6,533.88
COT DLC Total (2016 Lines)		$57,693.65

Total COT wo/ CLEC card (384 Lns)	$30,853.19
Total COT wo/ CLEC card (762 Lns)	$35,015.03
Total COT wo/ CLEC card (1344 Lns)	$49,452.07
Total COT wo/ CLEC card (2016 Lns)	$63,889.11

TR303 Interface

Description	Quantity	Ext.Cost
BCPM handles in Switch input		

REMOTE TERMINAL (copper dist.)

Description	Quantity	Ext.Cost
Cabinet MESA4 (384)	1	
Protector SS 260VDC TP BLK	384	
Solid State 260VDC TP RED	28	
Lucent Batteries & equip. (384)	8	
Cabinet MESA4 (672)	1	
Protector SS 260VDC TP BLK	672	
Solid State 260VDC TP RED	28	
Lucent Batteries & equip.(672)	8	
Cabinet MESA4 (1344)	1	
Protector SS 260VDC TP BLK	1344	
Solid State 260VDC TP RED	28	
Lucent Batteries & equip.(1344)	16	
Cabinet MESA6 (2016)	1	
Protector SS 260VDC TP BLK	2016	
Solid State 260VDC TP RED	28	
Lucent Batteries & equip.(2016)	24	
84CKT DSX Panel	2	
Alarm Cable	1	
AWT Installation Charge	1	
Teradyne 4TEL 225 RMU	1	
96 Fiber Patch panel	1	
AC Pwr Transfer Switch	1	
Cabinet Pad Template	1	
Total Material		$36,069.66
Sales Tax		$2,376.99
RT Total (384)		$38,446.65
Total Material		$38,732.30
Sales Tax		$2,552.46
RT Total (672)		$41,284.76
Total Material		$46,016.44
Sales Tax		$3,032.48
RT Total (1344)		$49,048.92
Total Material		$70,304.21
Sales Tax		$4,633.05
RT Total (2016)		$74,937.25

OC3 FOT (RT)

Description	Quantity	Ext.Cost
Alcatel 1603/12-COT-01	1	
Fan Panel wo/ Filter	1	
DS-1 connectorized I/O Panel	3	
DSX-1 Cabling kit (384, 672, 1344)	3	
Factory installation of the 4 items above	1	
DSX-1 Cabling kit (2016)	6	
Common Cards w/OC3 Int. Reach Optics	1	
VTG102 (4-DS1's /Crd) (384 Lns)	2	
VTG102 (4-DS1's /Crd) (672 Lns)	3	
VTG102 (4-DS1's /Crd) (1344 Lns)	4	
VTG102 (4-DS1's /Crd) (2016 Lns)	5	
DS1 floating drop Group Interface DMI102	2	
Network Element Processor	1	
Total Material		$19,166.61
Sales Tax		$1,263.08
Eng. Labor COE (8hrs@$55.89/hr)		$447.12
Install Labor (Plant COE 23hrs@$43.86/hr)		$1,008.78
Turnup Labor (Plant COE 16hrs@$43.86/hr)		$701.76
Labor	1	$2,157.66
RT FOT Total (384 Lns)		$22,587.35
Total Material		$19,616.28
Sales Tax		$1,292.71
Eng. Labor COE (8hrs@$55.89/hr)		$447.12
Install Labor (Plant COE 23hrs@$43.86/hr)		$1,008.78
Turnup Labor (Plant COE 16hrs@$43.86/hr)		$701.76
Labor	1	$2,157.66
RT FOT Total (672 Lns)		$23,066.65
Total Material		$20,065.95
Sales Tax		$1,322.35
Eng. Labor COE (8hrs@$55.89/hr)		$447.12
Install Labor (Plant COE 23hrs@$43.86/hr)		$1,008.78
Turnup Labor (Plant COE 16hrs@$43.86/hr)		$701.76
Labor	1	$2,157.66
RT FOT Total (2016 Lns)		$23,545.96
Total Material		$21,404.84
Sales Tax		$1,410.58
Eng. Labor COE (8hrs@$55.89/hr)		$447.12
Install Labor (Plant COE 23hrs@$43.86/hr)		$1,008.78
Turnup Labor (Plant COE 16hrs@$43.86/hr)		$701.76
Labor	1	$2,157.66
RT FOT Total (2016 Lns)		$24,973.08

COOL CELL CABINET

Description	Quantity	Ext.Cost
Cabinet	1	
Total Material		
Sales Tax		
Eng. Labor COE (8hrs@$55.89/hr)		
Install Labor (Plant COE 23hrs@$43.86/hr)	1	
Total Labor		
COOL CELL Total		$7,772.25

SITE COST

Description	Quantity	Ext.Cost
Site Prep. (Mat. & Labor)	1	$ 20,402.89
Site Cost Total		$ 20,402.89

Florida LARGE NGDLC (Universal)

TERMINAL EQUIPMENT		
Description	Quantity	Ext.Cost
DISC*S-COM-2 (1 shelf/672)	1	
LIU	1	
SFT5 20Hz Ring Generator	2	
LSU	6	
DISC*S-COM-2 (1 shelf/672)	1	
LIU	2	
SFT5 20Hz Ring Generator	2	
LSU	5	
DISC*S-COM-2 (1 shelf/672)	1	
LIU	3	
SFT5 20Hz Ring Generator	3	
LSU	4	
DISC*S-COM-2 (1 shelf/672)	1	
LIU	4	
SFT5 20Hz Ring Generator	4	
LSU	3	
DISC*S Dual Ch Unit DCU-20	1	
DISC*S Coin SCU-22 (single)	1	
Total Material		$16,698.17
Sales Tax		$1,100.41
Eng. Labor COE (72hrs @ $55.89/hr)		$4,024.08
Install Labor (Plant COE 150hrs @ $43.86/hr)		$6,579.00
Labor	1	$10,603.08
Terminal Cost Total (384)		$28,401.66
Total Material		$17,751.47
Sales Tax		$1,169.82
Eng. Labor COE (72hrs @ $55.89/hr)		$4,024.08
Install Labor (Plant COE 150hrs @ $43.86/hr)		$6,579.00
Labor	1	$10,603.08
Terminal Cost Total (672)		$29,524.37
Total Material		$20,155.38
Sales Tax		$1,328.24
Eng. Labor COE (72hrs @ $55.89/hr)		$4,024.08
Install Labor (Plant COE 150hrs @ $43.86/hr)		$6,579.00
Labor	1	$10,603.08
Terminal Cost Total (1344)		$32,086.70
Total Material		$22,178.52
Sales Tax		$1,461.56
Eng. Labor COE (72hrs @ $55.89/hr)		$4,024.08
Install Labor (Plant COE 150hrs @ $43.86/hr)		$6,579.00
Labor	1	$10,603.08
Terminal Cost Total (2016)		$34,243.16

Total RT wo/ CLEC card (384 Lns)	$66,848.31
Total RT wo/ CLEC card (672 Lns)	$70,809.14
Total RT wo/ CLEC card (1344 Lns)	$81,135.62
Total RT wo/ CLEC card (2016 Lns)	$109,180.42

SYSTEM ALLOCATION	
TR-303 terminal (covered in switch input)	
COT (15 RT's per) (384 Lns)	$2,056.88
OC# FOT (COT) (4 RT's per) (384)	$5,382.37
Total (384 Lns)	$7,439.25
COT (15 RT's per) (672 Lns)	$2,334.34
OC# FOT (COT) (4 RT's per) (672)	$5,502.20
Total (672 Lns)	$7,836.54
COT (15 RT's per) (1344 Lns)	$3,296.80
OC# FOT (COT) (4 RT's per) (1344)	$5,622.03
Total (1344 Lns)	$8,918.83
COT (15 RT's per) (2016 Lns)	$4,259.27
OC# FOT (COT) (4 RT's per) (2016)	$5,741.85
Total (2016 Lns)	$10,001.13

BCPM INPUT (With labor, SNS & Tax)		
RT 241-384 lines Basic Common Eqpt.Invest		$117,610.80
RT 385-672 lines Basic Common Eqpt.Invest		$122,050.93
RT 673-1344 lines Basic Common Eqpt.Invest		$132,856.72
RT 1345-2016 lines Basic Common Eqpt.Invest		$162,328.64
COT 241-384 lines Basic Common Eqpt.Invest (allocated)		$7,439.25
COT 385-672 lines Basic Common Eqpt.Invest (allocated)		$7,836.54
COT 673-1344 lines Basic Common Eqpt.Invest (allocated)		$8,918.83
COT 1345-2016 lines Basic Common Eqpt.Invest (allocated)		$10,001.13
POTS Channel Unit Investment (cost/line)		$115.05
Coin Channel Investment (cost/line)		$613.30
COT DLC Cost/Line (avg.of 384 & 672 lines)		$15.52
RT DLC Cost/Line Ext. Range Line Card/dual	$199.49	$99.74
DDS COT & RT (1Line / card)		$679.41

Florida LARGE NGDLC (Universal)

All Line Card Costs On This Sheet Are Highly Proprietary

Florida Small NGDLC (Universal)

LET

Description	Quantity	Cost
ASSEMBLIES		
CBA Supr Pkg 06A: CBA, CmnPkg06A	1	
19 CBA Projection Mount (5) Adapt. Kit	1	
TRANSCEIVERS		
Fiber Optic Transceivers	2	
ANALOG UNITS		
L-Pay, LET Payphone Chnl. Unit	1	
L-UVG, LET Univ.Voice Grd.card Chnl.Unit	1	
DIGITAL UNITS (Cards used in special application)		
L-ISDN, Local Exch. ISDN Channel Unit	1	
T-1A, T1 Asynch. Chnl. Unit (Powered)	1	
DSO-DP, Digital Signal Zero Data Port	1	
Total Material		
Sales Tax		$363.83
Eng. Labor COE (40hrs@$55.89/hr)		$2,235.60
Install Labor (Plant COE 72hrs@$43.86/hr)		$3,157.92
Labor	1	$5,393.52
COT Total		$11,278.32

Total DS1 spans/ 4 FIBERS/DS1- SPANS	5

SITE COST

Description	Quantity	Cost
Site Prep. (Mat. & Labor)	1	$6,764.00
Site Cost Total		$6,764.00

SYSTEM ALLOCATION

LET (15 RT's per)	$751.89
Total	$751.89

BCPM INPUT (With labor & Tax)

RT 0-48 lines Basic Common Eqpt.Invest		$20,098.91
RT 49-120 lines Basic Common Eqpt.Invest		$23,360.07
RT 121-240 lines Basic Common Eqpt.Invest		$32,285.91
COT 0-240 lines Basic Common Eqpt.Invest (total)		$11,278.32
POTS Channel Unit Investment (cost/line)		$140.00
Coin Channel Investment (cost/line)		$222.31
COT DLC Cost/Line	96Line Avg	$117.48
RT DLC Cost/Line Ext. Range Line Card/6 Ln	$720.02	$120.00
Digital Data Ch. Card 1 Line/card (COT&RT)		$1,338.50

REMOTE TERMINAL (copper dist.)

Description	Quantity	Cost
CABINETS		
48 48 Spkg.06b:48Pkg01D,CmnPkg06B	1	
120 Spkg.06A:120Pkg06A,CmnPkg06C,PwrPkg1	1	
240-2Spkg.06A:240-2Pkg06A,CmnPkg06D,PwrPkg1	1	
TRANSCEIVERS		
Fiber Optic Transceiver	2	
ADDITIONAL EQUIPMENT		
12 Position Fusion Fiber Splicing Tray	1	
(RSC) 12 Position Fiber Dist. Panel	1	
Pour in Place Template	1	
240H-Frame	N/A	
RCS/240 Battery Tray Warmer	N/A	
AT&T IR-30C Batteries (48)	4	
AT&T IR-40C Batteries (120)	4	
AT&T IR-40C Batteries (240)	8	
RST TR8 LIF RST TR-008 Ln Item Feature (Pre-Inst)	N/A	
120/240 Cable Management Riser Base 15"	1	
CHANNEL UNITS (Cards used in typical application)		
L-POTS	1	
R-POTS	1	
RST-PAY PHONE (6 lines/card)	1	
(R-EPOTS) RST Extended range POTS CH unit	1	
CHANNEL UNITS (Cards used in special application)		
R-UVG (6 lines/card)	1	
OCU_DP, Office Channel Unit Data Port (1 digital ckt)	1	
T-1A, T-1 Asynch. Chnl. Unit (Powered) (1 T-1 ckt)	1	
R-ISDN	1	
Total Material		$10,354.77
Sales Tax		$682.38
Labor	1	$2,297.76
RT Total (48 lines)		$13,334.91
Total Material		$13,414.31
Sales Tax		$884.00
Labor	1	$2,297.76
RT Total (120 lines)		$16,596.07
Total Material		$21,788.31
Sales Tax		$1,435.85
Labor	1	$2,297.76
RT Total (240 lines)		$25,521.91

see models & kits

Florida Small NGDLC (Universal)

All Line Card Costs On This Sheet Are Highly Proprietary

Sprint Florida, Inc.

Docket 990649 - TP

Workpapers 7

Pole Costs
Sprint-Florida

Terrain		40' C4 Poles	Anchor/ Guy
Normal	Material	$273.37	$72.27
	Tax	$18.01	$4.76
	Total Material	$291.38	$77.03
	Contract Labor	$108.04	$46.58
	Overhead	$32.41	$13.97
	Total Labor	$140.45	$60.55
	Total Cost	$431.83	$137.58
Rocky	Material	$273.37	$72.27
	Tax	$18.01	$4.76
	Total Material	$291.38	$77.03
	Contract Labor	$181.17	$119.71
	Overhead	$54.35	$35.91
	Total Labor	$235.52	$155.62
	Total Cost	$526.90	$232.65

Anchor/Guy Mat'l	Number	Cost	Ext Cost
Strand 5/16	30	$0.12	$3.64
Preformed Dead-End	2	$0.70	$1.39
Eyenut	1	$2.53	$2.53
Curve Washer	1	$0.51	$0.51
Strand Nut	1	$0.35	$0.35
Bolt 5/8x16	1	$2.06	$2.06
Lag Screw 1/2 x 4"	1	$0.50	$0.50
Guy Hook	1	$7.53	$7.53
Lift Plate	1	$0.95	$0.95
Anchor Rod	1	$22.07	$22.07
Anchor Plate	1	$30.74	$30.74
Total			$72.27

Pole Structure Sharing
Sprint-Florida

	Poles		Unit Cost	Sprint Cost
Foreign Power Company owned	264,028	Rental poles to Sprint	$ 18.97	$ 5,009,364
Sprint owned	43,456		116.56	5,065,068
Rentals to Power Companies	9,207	Revenue to Sprint	(22.50)	(207,182)
Rentals to CATV Companies	11,183	Revenue to Sprint	(3.87)	(43,227)
Sprint Total	307,484			$ 9,824,024
Total if all Sprint-owned	307,484		116.56	$ 35,839,182
Percent Assigned to Telephone:				27.41%

Structure Costs
Sprint-Florida

Category	Activity	Quantity	Amount	Cost
Aerial	Pole Placement	153	16,530.33	108.04
	Additional Chg for Rocky Pole/Anchor	10	731.30	73.13
	Total Rocky Pole Placement			181.17
	Anchor Placement	221	6,421	29.05
	Guy Placement	870	15,248	17.53
	Total Anchor & Guy Placement			46.58
	Additional Chg for Rocky Pole/Anchor			73.13
	Total Rocky Anchor & Guy Placement			119.71
Undgd	Conduit Trenching	165,969	455,625.44	2.75
	Add'l. for Rock	101,343	349,245.35	3.45
	Conduit Trenching - Hard Rock			6.20
	Conduit Boring	2,417	37,874.87	15.67
	Additional for Rock (16.46-9.32)			7.14
	Conduit Boring - Hard Rock			22.81
	Remove Asphalt	12,697	21,819.31	3.44
	Restore Asphalt	9,461	30,361.12	6.42
	Cut & Restore Asphalt additive			9.86
	Cut & Restore Asphalt incl. Trench			12.61
	Cut & Restore Asphalt incl. Trench - Hard Rock			16.06
	Remove Concrete	8,954	23,872.16	5.33
	Restore Concrete	6,034	19,859.71	6.58
	Cut & Restore Concrete additive			11.92
	Cut & Restore Concrete incl. Trench			14.67
	Cut & Restore Concrete incl. Trench - Hard Rock			18.12
	Cut & Restore Sod additive	57,871	28,315.95	0.98
	Cut & Restore Sod incl. Trench			3.73
	Cut & Restore Sod incl. Trench - Hard Rock			7.18

Structure Costs
Sprint-Florida

Category	Activity	Quantity	Amount	Cost
Buried	Plow Cable	3,027,557	4,312,065.15	1.42
	Additional for Rock	101,343	349,245.35	3.45
	Plow Cable - Hard Rock			4.87
	Additive for Rocky Plow	73,900	56,632.37	0.77
	Rocky Plow (1.42+0.77)			2.19
	Rocky Plow - Hard Rock (4.87+0.77)			5.64
	Push Pipe & Pull Cable	194,934	1,378,224.45	7.07
	Boring	773,866	7,212,651.21	9.32
	Boring - Hard Rock	24,511	403,380.03	16.46
	Remove Asphalt	12,697	21,819.31	3.44
	Restore Asphalt	9,461	30,361.12	6.42
	Cut & Restore Asphalt additive			9.86
	Cut & Restore Asphalt incl. Plow			11.28
	Cut & Restore Asphalt incl. Plow - Hard Rock			14.73
	Remove Concrete	8,954	23,872.16	5.33
	Restore Concrete	6,034	19,859.71	6.58
	Cut & Restore Concrete additive			11.92
	Cut & Restore Concrete incl. Plow			13.34
	Cut & Restore Concrete incl. Plow - Hard Rock			16.79
	Cut & Restore Sod additive	57,871	28,315.95	0.98
	Cut & Restore Sod incl. Plow			2.40
	Cut & Restore Sod incl. Plow - Hard Rock			5.85

Structure Activity
Sprint-Florida

Breakdown of Total Structure Activities by Type:

Activity	Low Density Quantity	Low Density % of Total	Medium Density Quantity	Medium Density % of Total	High Density Quantity	High Density % of Total
Plow	818,553	85.17%	3,027,557	69.63%	189,208	37.41%
Rocky Plow (% of Plow)	21,462	2.62%	73,900	2.44%	8,261	4.37%
Push Pipe & Pull Cable	22,125	2.30%	194,934	4.48%	15,274	3.02%
Boring	88,975	9.26%	798,377	18.36%	244,357	48.32%
Conduit Boring	61	0.01%	2,417	0.06%	206	0.04%
Conduit Trenching	6,071	0.63%	165,969	3.82%	23,567	4.66%
Cut & Restore Asphalt	51	0.01%	12,697	0.58%	3,926	1.55%
Cut & Restore Concrete	500	0.10%	8,954	0.41%	1,549	0.61%
Cut & Restore Sod	12,095	2.52%	57,871	2.66%	11,076	4.38%
Total Structure Activity	961,077	100.00%	4,348,295	100.00%	505,714	100.00%

Percent Activity Gross-up to 100% by Category:

Category	Activity	Low Density Raw %	Low Density % Activity	Medium Density Raw %	Medium Density % Activity	High Density Raw %	High Density % Activity	
Undgd	Trench & Backfill	0.63%	19.27%	3.82%	50.73%	4.66%	40.17%	
	Rocky Trench	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
	Backhoe Trench	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
	Hand Dig Trench	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
	Boring	0.01%	0.31%	0.06%	0.80%	0.40%	3.45%	
	Cut & Restore Asphalt	0.01%	0.31%	0.58%	7.70%	1.55%	13.36%	
	Cut & Restore Concrete	0.10%	3.06%	0.41%	5.44%	0.61%	5.26%	
	Cut & Restore Sod	2.52%	77.06%	2.66%	35.33%	4.38%	37.76%	
	Total	3.27%	100.000%	7.53%	100.00%	11.60%	100.00%	
Buried	Plow (excl. Rocky Plow)	82.55%	83.08%	67.19%	69.90%	43.04%	45.17%	*
	Rocky Plow	2.62%	2.64%	2.44%	2.54%	4.37%	4.59%	
	Trench & Backfill	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
	Rocky Trench	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
	Backhoe Trench	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
	Hand Dig Trench	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
	Bore Cable	9.26%	9.32%	18.36%	19.10%	38.32%	40.21%	*
	Push Pipe & Pull Cable	2.30%	2.31%	4.48%	4.66%	3.02%	3.17%	
	Cut & Restore Asphalt	0.01%	0.01%	0.58%	0.60%	1.55%	1.63%	
	Cut & Restore Concrete	0.10%	0.10%	0.41%	0.43%	0.61%	0.64%	
	Cut & Restore Sod	2.52%	2.54%	2.66%	2.77%	4.38%	4.60%	
	Total	99.36%	100.00%	96.12%	100.00%	95.29%	100.00%	

* Buried Plow and Bore Cable activity percentages adjusted in High Density areas to force buried structure costs to be lower than underground structure costs.

Manhole Costs
Sprint - Florida

		Type of Manhole			
	Loading Factor	Handhole 3x5 or 4x6	Manhole 4x6x7	Manhole 12x6x7	Adder 12x6x7
Material Cost		$ 752.43	$ 1,931.50	$ 2,603.38	$ 2,271.57
Material Overheads	26.10%	$ 196.38	$ 504.12	$ 679.48	$ 592.88
Total Material		$ 948.81	$ 2,435.62	$ 3,282.86	$ 2,864.45
Engineering	26.70%	$ 200.90	$ 515.71	$ 695.10	$ 151.63
Placement		$ 267.50	$ 686.68	$ 925.54	$ 201.89
Overheads	33.10%	$ 155.04	$ 397.99	$ 536.43	$ 117.02
Total Installation		$ 623.44	$ 1,600.38	$ 2,157.08	$ 470.54
Total Cost		$ 1,572.25	$ 4,036.00	$ 5,439.94	$ 3,334.98

Note: Adder material costs based on proportion of BCPM default inputs for adder to default input for 12x6x7 manhole. Adder installation costs reduced by 75% to reflect only incremental cost of placement above manhole.

Sprint Florida, Inc.

Docket 990649 - TP

Workpapers 8

Florida Plant Mix - Forward Looking

Copper Distribution < 400 Pair Cables

Density Group	Aerial Lines	Aerial Percent	Underground Lines	Underground Percent	Buried Lines	Buried Percent	Total Lines	Total Percent
0 - 5	8,137	5.4%	-	0.0%	141,399	94.6%	149,470	100%
6 - 100	13,009	7.8%	332	0.2%	152,657	92.0%	165,932	100%
101-200	17,881	9.8%	1,277	0.7%	163,242	89.5%	182,394	100%
201 - 650	22,753	11.4%	2,187	1.1%	173,998	87.5%	198,855	100%
651 - 850	27,625	12.8%	3,014	1.4%	184,742	85.8%	215,317	100%
851 - 2550	32,497	14.0%	3,708	1.6%	195,621	84.4%	231,778	100%
2551 - 5000	37,369	15.1%	4,717	1.9%	206,039	83.0%	248,240	100%
5001 - 10000	42,241	16.0%	5,559	2.1%	216,791	81.9%	264,701	100%
> 10001	47,112	16.8%	6,467	2.3%	227,461	80.9%	281,163	100%
Total	248,624	12.8%	27,261	1.4%	1,661,950	85.8%	1,937,850	100%

Copper Feeder = 400 Pair and >

Density Group	Aerial Lines	Aerial Percent	Underground Lines	Underground Percent	Buried Lines	Buried Percent	Total Lines	Total Percent
0 - 5	3,886	2.6%	22,122	14.8%	123,462	82.6%	149,470	100%
6 - 100	4,646	2.8%	25,222	15.2%	136,064	82.0%	165,932	100%
101-200	5,289	2.9%	28,453	15.6%	148,651	81.5%	182,394	100%
201 - 650	6,165	3.1%	31,618	15.9%	161,073	81.0%	198,855	100%
651 - 850	6,890	3.2%	34,666	16.1%	173,761	80.7%	215,317	100%
851 - 2550	7,649	3.3%	37,780	16.3%	186,350	80.4%	231,778	100%
2551 - 5000	8,440	3.4%	40,960	16.5%	198,840	80.1%	248,240	100%
5001 - 10000	9,265	3.5%	43,940	16.6%	211,496	79.9%	264,701	100%
> 10001	9,841	3.5%	47,235	16.8%	224,087	79.7%	281,163	100%
Total	62,070	3.2%	311,996	16.1%	1,563,784	80.7%	1,937,850	100%

Florida Plant Mix - Trended

Copper Distribution < 400 Pair Cables

Density Group	Aerial Lines	Trend Lines	Aerial Percent	Underground Lines	Trend Lines	Underground Percent	Buried Lines	Trend Lines	Buried Percent	Total Lines	Total Percent
0 - 5	967	8,137	5.4%	23	(456)	-0.3%	10,529	141,789	94.9%	149,470	100%
6 - 100	16,022	13,009	7.8%	724	396	0.2%	169,441	152,526	91.9%	165,932	100%
101-200	14,441	17,881	9.8%	799	1,249	0.7%	139,923	163,263	89.5%	182,394	100%
201 - 650	27,434	22,753	11.4%	1,937	2,102	1.1%	265,085	174,001	87.5%	198,855	100%
651 - 850	9,959	27,625	12.8%	588	2,954	1.4%	75,412	184,738	85.8%	215,317	100%
851 - 2550	68,807	32,497	14.0%	6,729	3,807	1.6%	527,846	195,475	84.3%	231,778	100%
2551 - 5000	44,109	37,369	15.1%	4,502	4,659	1.9%	270,588	206,212	83.1%	248,240	100%
5001 - 10000	24,006	42,241	16.0%	3,914	5,512	2.1%	144,678	216,949	82.0%	264,701	100%
> 10001	42,881	47,112	16.8%	7,370	6,365	2.3%	59,136	227,686	81.0%	281,163	100%
Total	248,624	248,624	12.8%	26,587	26,587	1.4%	1,662,639	1,662,639	85.8%	1,937,850	100%

Copper Feeder = 400 Pair and >

Density Group	Aerial Lines	Trend Lines	Aerial Percent	Underground Lines	Trend Lines	Underground Percent	Buried Lines	Trend Lines	Buried Percent	Total Lines	Total Percent
0 - 5	273	2,928	2.0%	1,367	24,376	16.3%	9,879	122,167	81.7%	149,470	100%
6 - 100	5,126	3,593	2.2%	27,011	27,754	16.7%	154,050	134,585	81.1%	165,932	100%
101-200	2,761	4,258	2.3%	24,685	31,133	17.1%	127,718	147,003	80.6%	182,394	100%
201 - 650	5,227	4,923	2.5%	50,403	34,512	17.4%	238,827	159,420	80.2%	198,855	100%
651 - 850	1,179	5,588	2.6%	14,217	37,891	17.6%	70,563	171,838	79.8%	215,317	100%
851 - 2550	17,499	6,253	2.7%	116,320	41,269	17.8%	469,563	184,256	79.5%	231,778	100%
2551 - 5000	9,190	6,918	2.8%	60,245	44,648	18.0%	249,763	196,674	79.2%	248,240	100%
5001 - 10000	4,899	7,583	2.9%	34,877	48,027	18.1%	132,822	209,092	79.0%	264,701	100%
> 10001	4,136	8,248	2.9%	11,890	51,406	18.3%	93,361	221,509	78.8%	281,163	100%
Total	50,291	50,291	2.6%	341,016	341,016	17.6%	1,546,544	1,546,544	79.8%	1,937,850	100%

Florida
Distribution Cable
% of Sheath Miles by Cable Type

		Aerial Copper	%	Undgrd. Copper	%	Buried Copper	%	Total Miles	Total %
ALFRFLXARS0	Alford	4.92	1.85%	-	0.00%	260.79	98.15%	265.71	100.00%
ALSPFLXADS0	Altamonte Springs	18.75	3.80%	2.51	0.51%	471.79	95.69%	493.05	100.00%
ALVAFLXARS0	Alva	24.32	21.85%	-	0.00%	86.98	78.15%	111.30	100.00%
APPKFLXADS1	Apopka	42.76	6.56%	2.11	0.32%	607.48	93.12%	652.36	100.00%
ARCDFLXADS0	Arcadia	26.79	3.34%	0.31	0.04%	773.84	96.62%	800.93	100.00%
ASTRFLXARS0	Astor	2.77	3.53%	-	0.00%	75.90	96.47%	78.67	100.00%
AVPKFLXADS0	Avon Park	5.07	1.30%	0.56	0.14%	385.38	98.56%	391.01	100.00%
BAKRFLXADS0	Baker	24.36	5.62%	0.04	0.01%	408.80	94.37%	433.20	100.00%
BLVWFLXADS0	Belleview	23.77	3.22%	0.57	0.08%	713.03	96.70%	737.38	100.00%
BVHLFLXADS0	Beverly Hills	2.54	0.58%	2.04	0.46%	436.30	98.96%	440.88	100.00%
TLHSFLXDDS0	Blairstone	172.34	22.90%	4.33	0.58%	575.82	76.52%	752.49	100.00%
BCGRFLXARS0	Boca Grande	0.34	0.84%	0.36	0.90%	39.45	98.27%	40.15	100.00%
BNFYFLXARS0	Bonifay	23.56	5.03%	0.75	0.16%	444.41	94.81%	468.72	100.00%
BNSPFLXADS1	Bonita Springs	127.62	24.73%	2.58	0.50%	385.94	74.77%	516.14	100.00%
BWLGFLXARS0	Bowling Green	0.50	0.45%	0.20	0.19%	109.08	99.36%	109.78	100.00%
KSSMFLXDRS0	Buenaventura Lakes	5.11	2.45%	0.00	0.00%	203.59	97.55%	208.70	100.00%
BSHNFLXADS0	Bushnell	57.14	8.27%	1.13	0.16%	632.93	91.57%	691.19	100.00%
TLHSFLXADS0	Calhoun	112.69	65.60%	14.69	8.55%	44.41	25.85%	171.79	100.00%
CPCRFLXADS0	Cape Coral	138.24	29.25%	0.22	0.05%	334.14	70.70%	472.60	100.00%
CPHZFLXADS0	Cape Haze	18.40	4.49%	0.90	0.22%	390.56	95.29%	409.85	100.00%
CSLBFLXADS1	Casselberry	5.04	2.07%	0.31	0.13%	238.45	97.80%	243.81	100.00%
CHSWFLXARS0	Chassahowitzka	1.74	1.02%	0.12	0.07%	169.94	98.91%	171.81	100.00%
CHLKFLXARS0	Cherry Lake	2.50	1.00%	0.03	0.01%	247.48	98.99%	250.01	100.00%
CLMTFLXADS0	Clermont	8.48	1.40%	1.99	0.33%	596.03	98.27%	606.49	100.00%
CLTNFLXARS0	Clewiston	51.22	10.22%	0.17	0.03%	449.67	89.74%	501.06	100.00%
CTDLFLXARS0	Cottondale	3.71	2.18%	-	0.00%	166.76	97.82%	170.46	100.00%
CFVLFLXADS0	Crawfordville	24.38	5.06%	0.01	0.00%	457.78	94.94%	482.16	100.00%
CRVWFLXADS0	Crestview	165.08	26.95%	0.41	0.07%	446.96	72.98%	612.44	100.00%
CRRVFLXADS0	Crystal River	23.09	4.56%	0.71	0.14%	482.63	95.30%	506.43	100.00%
CYLKFLXADS0	Cypress Lake	103.58	14.21%	8.67	1.19%	616.80	84.60%	729.06	100.00%
DDCYFLXADS1	Dade City	28.75	6.69%	2.64	0.62%	398.18	92.69%	429.58	100.00%
DFSPFLXADS0	Defuniak	121.83	17.18%	0.48	0.07%	586.70	82.75%	709.01	100.00%
ORCYFLXCRS0	Deltona Lakes	0.20	0.05%	1.57	0.39%	404.06	99.56%	405.83	100.00%
FTWBFLXBDS0	Denton	64.23	29.18%	0.09	0.04%	155.78	70.78%	220.09	100.00%
DESTFLXADS0	Destin	27.07	11.19%	0.16	0.07%	214.70	88.74%	241.93	100.00%

Florida
Distribution Cable
% of Sheath Miles by Cable Type

		Aerial Copper	%	Undgrd. Copper	%	Buried Copper	%	Total Miles	Total %
FTMYFLXBDS0	East Fort Myers	74.04	20.95%	1.17	0.33%	278.20	78.72%	353.40	100.00%
ELFDFLXADS0	Eglin Air Force Base	35.80	19.42%	0.86	0.46%	147.69	80.12%	184.35	100.00%
ESTSFLXADS0	Eustis	26.23	4.31%	1.71	0.28%	580.48	95.41%	608.42	100.00%
EVRGFLXARS0	Everglades	52.78	43.08%	0.01	0.00%	69.71	56.91%	122.50	100.00%
OCNFFLXARS0	Forest	12.16	4.85%	0.10	0.04%	238.30	95.11%	250.55	100.00%
FTMDFLXARS0	Fort Meade	7.41	4.53%	0.54	0.33%	155.70	95.14%	163.65	100.00%
FTMBFLXADS0	Fort Myers Beach	2.64	2.48%	5.12	4.82%	98.63	92.70%	106.40	100.00%
FTMYFLXADS0	Fort Myers Main	35.61	13.70%	18.45	7.10%	205.97	79.21%	260.04	100.00%
CYLKFLXBRS0	Fort Myers Regional Airp	16.53	10.59%	7.89	5.06%	131.67	84.36%	156.09	100.00%
FRPTFLXARS0	Freeport	23.69	8.82%	-	0.00%	245.02	91.18%	268.71	100.00%
TLHSFLXEDS0	FSU	3.01	25.51%	3.83	32.43%	4.97	42.05%	11.81	100.00%
GLDLFLXARS0	Glendale	13.71	7.05%	0.00	0.00%	180.86	92.95%	194.56	100.00%
GLGCFLXADS0	Golden Gate	240.80	35.44%	1.66	0.24%	436.98	64.31%	679.44	100.00%
GLRDFLXADS0	Goldenrod	14.56	3.50%	1.96	0.47%	399.55	96.03%	416.07	100.00%
GDRGFLXADS0	Grand Ridge	14.89	4.22%	-	0.00%	337.84	95.78%	352.73	100.00%
GNVLFLXARS0	Greenville	5.54	2.09%	0.00	0.00%	259.02	97.91%	264.57	100.00%
GNWDFLXARS0	Greenwood	4.36	4.92%	-	0.00%	84.21	95.08%	88.57	100.00%
GVLDFLXARS0	Groveland	9.62	2.53%	0.22	0.06%	369.74	97.41%	379.57	100.00%
OCALFLXCRS0	Highlands	3.36	1.93%	2.28	1.31%	168.19	96.75%	173.83	100.00%
FTWBFLXADS0	Hollywood	76.77	41.14%	0.24	0.13%	109.58	58.73%	186.59	100.00%
HMSPFLXARS0	Homosassa	11.32	3.13%	1.95	0.54%	348.71	96.33%	361.98	100.00%
HOWYFLXARS0	Howey	3.37	3.70%	0.00	0.00%	87.64	96.29%	91.02	100.00%
IMKLFLXARS0	Immokalee	111.82	28.92%	0.09	0.02%	274.74	71.06%	386.65	100.00%
INVRFLXADS0	Inverness	18.69	2.06%	0.37	0.04%	889.03	97.90%	908.09	100.00%
KNVLFLXARS0	Kenansville	2.46	1.51%	-	0.00%	160.32	98.49%	162.79	100.00%
KGLKFLXARS0	Kingsley Lake	1.68	5.25%	-	0.00%	30.41	94.75%	32.10	100.00%
KSSMFLXADS0	Kissimmee	27.07	3.72%	6.27	0.86%	693.70	95.41%	727.04	100.00%
LBLLFLXADS0	LaBelle	122.06	23.62%	3.17	0.61%	391.60	75.77%	516.83	100.00%
LDLKFLXADS0	Lady Lake	14.32	3.20%	3.61	0.81%	429.36	95.99%	447.29	100.00%
LKBRFLXADS1	Lake Brantley	3.76	0.96%	0.27	0.07%	390.08	98.98%	394.11	100.00%
LKHLFLXARS0	Lake Helen	2.08	2.63%	0.03	0.04%	76.75	97.33%	78.85	100.00%
LKPCFLXARS0	Lake Placid	38.22	5.62%	0.20	0.03%	641.89	94.35%	680.30	100.00%
LWTYFLXARS0	Lawtey	0.71	0.67%	-	0.00%	104.49	99.33%	105.20	100.00%
LEE FLXARS0	Lee	0.37	0.13%	0.22	0.07%	298.04	99.80%	298.63	100.00%
LSBGFLXADS1	Leesburg	27.85	3.97%	7.92	1.13%	666.41	94.91%	702.18	100.00%

Florida
Distribution Cable
% of Sheath Miles by Cable Type

		Aerial Copper	%	Undgrd. Copper	%	Buried Copper	%	Total Miles	Total %
LHACFLXADS0	Lehigh Acres	275.09	40.34%	0.76	0.11%	406.12	59.55%	681.97	100.00%
TLHSFLXCDS0	Mabry	168.10	31.52%	3.59	0.67%	361.58	67.80%	533.27	100.00%
MDSNFLXADS0	Madison	32.19	9.50%	0.08	0.02%	306.63	90.48%	338.89	100.00%
MTLDFLXADS1	Maitland Park	0.17	0.61%	0.40	1.46%	26.87	97.93%	27.44	100.00%
MALNFLXARS0	Malone	1.11	0.47%	-	0.00%	237.03	99.53%	238.15	100.00%
MOISFLXADS0	Marco Island	15.13	5.66%	0.20	0.08%	251.73	94.26%	267.06	100.00%
MRNNFLXADS0	Mariana	60.46	12.00%	5.62	1.12%	437.81	86.89%	503.89	100.00%
FTWBFLXCRS0	Mary Esther	16.41	25.08%	0.14	0.21%	48.90	74.71%	65.45	100.00%
MNTIFLXADS0	Monticello	42.47	5.09%	0.02	0.00%	791.54	94.90%	834.03	100.00%
MTVRFLXARS0	Montverde	7.70	10.92%	-	0.00%	62.81	89.08%	70.51	100.00%
MRHNFLXARS0	Moore Haven	5.53	3.45%	-	0.00%	154.69	96.55%	160.23	100.00%
MTDRFLXADS0	Mount Dora	21.26	5.15%	2.42	0.59%	389.53	94.27%	413.21	100.00%
NPLSFLXDDS0	Naples Moorings	31.26	8.05%	4.83	1.24%	352.00	90.70%	388.09	100.00%
NPLSFLXCDS0	Naples Southeast	89.51	21.79%	1.87	0.45%	319.35	77.75%	410.73	100.00%
CPCRFLXBDS1	North Cape Coral	209.09	32.03%	0.37	0.06%	443.27	67.91%	652.74	100.00%
NFMYFLXADS0	North Fort Myers	111.55	19.78%	5.30	0.94%	447.01	79.28%	563.85	100.00%
NNPLFLXADS1	North Naples	58.32	12.70%	2.99	0.65%	397.83	86.65%	459.14	100.00%
OCALFLXADS0	Ocala	68.54	5.67%	17.11	1.42%	1,122.29	92.91%	1,207.93	100.00%
OKCBFLXADS0	Okeechobee	47.16	4.27%	1.58	0.14%	1,055.26	95.59%	1,104.00	100.00%
OKLWFLXADS0	Oklawaha	5.10	2.87%	0.02	0.01%	172.78	97.12%	177.91	100.00%
ORCYFLXADS0	Orange City	3.12	1.41%	0.07	0.03%	217.77	98.56%	220.96	100.00%
PANCFLXARS0	Panacea	3.70	6.52%	0.01	0.01%	53.12	93.47%	56.83	100.00%
TLHSFLXHDS0	Perkins	36.74	16.21%	0.40	0.18%	189.48	83.61%	226.63	100.00%
PNISFLXADS0	Pine Island	119.02	34.71%	0.02	0.01%	223.88	65.29%	342.92	100.00%
PNLNFLXARS0	Ponce DeLeon	14.67	6.50%	0.01	0.01%	210.89	93.49%	225.57	100.00%
PTCTFLXADS0	Port Charlotte	83.30	7.46%	3.74	0.33%	1,029.02	92.20%	1,116.06	100.00%
PNGRFLXADS1	Punta Gorda	88.13	10.43%	8.64	1.02%	748.22	88.55%	844.98	100.00%
RYHLFLXARS0	Reynolds Hill	0.76	0.25%	0.01	0.00%	299.64	99.75%	300.40	100.00%
STMKFLXARS0	Saint Marks	13.73	16.05%	0.01	0.01%	71.84	83.95%	85.58	100.00%
SSPRFLXARS0	Salt Springs	7.64	6.91%	-	0.00%	102.96	93.09%	110.60	100.00%
SNANFLXARS0	San Antonio	13.80	6.55%	1.67	0.79%	195.21	92.66%	210.68	100.00%
SNISFLXADS0	Sanibel Island	1.36	0.81%	0.92	0.54%	166.56	98.65%	168.84	100.00%
SNRSFLXARS0	Santa Rosa	2.39	1.28%	0.17	0.09%	184.24	98.63%	186.79	100.00%
SGBHFLXARS0	Seagrove	0.18	0.11%	0.34	0.21%	160.67	99.68%	161.19	100.00%
SBNGFLXADS1	Sebring	4.39	0.71%	6.60	1.06%	610.15	98.23%	621.15	100.00%

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Distribution Cable
% of Sheath Miles by Cable Type

		Aerial Copper	%	Undgrd. Copper	%	Buried Copper	%	Total Miles	Total %
OCALFLXBDS0	Shady Road	28.94	3.66%	3.45	0.44%	758.63	95.91%	791.02	100.00%
SHLMFLXADS0	Shalimar	14.22	12.44%	0.64	0.56%	99.50	87.00%	114.37	100.00%
SVSPFLXARS0	Silver Springs	17.72	8.80%	4.03	2.00%	179.65	89.20%	201.40	100.00%
SVSSFLXARS0	Silver Springs Shores	4.18	2.11%	0.24	0.12%	193.70	97.77%	198.12	100.00%
SNDSFLXARS0	Sneads	3.98	2.84%	-	0.00%	136.33	97.16%	140.31	100.00%
SPCPFLXADS0	Sopchoppy	6.22	3.90%	-	0.00%	153.19	96.10%	159.41	100.00%
FTMYFLXCDS2	South Fort Myers	56.79	19.73%	19.22	6.68%	211.87	73.60%	287.88	100.00%
SLHLFLXARS0	Spring Lake	0.92	0.34%	0.53	0.20%	265.69	99.46%	267.14	100.00%
STCDFLXADS0	St. Cloud	43.29	6.13%	0.06	0.01%	662.37	93.86%	705.72	100.00%
STRKFLXADS0	Starke	19.92	5.57%	0.40	0.11%	337.30	94.32%	357.62	100.00%
NFMYFLXBDS0	Suncoast	25.47	18.75%	0.70	0.52%	109.64	80.73%	135.82	100.00%
TVRSFLXADS0	Tavares	14.51	4.64%	1.37	0.44%	296.76	94.92%	312.64	100.00%
TLHSFLXFDS0	Thomasville	57.94	7.47%	3.24	0.42%	714.27	92.11%	775.45	100.00%
TLCHFLXARS0	Trilacoochee	10.53	5.20%	-	0.00%	191.87	94.80%	202.40	100.00%
UMTLFLXARS0	Umatilla	18.66	4.29%	1.22	0.28%	414.91	95.43%	434.79	100.00%
WCHLFLXADS0	Wauchula	1.80	0.51%	1.65	0.47%	350.86	99.02%	354.32	100.00%
KSSMFLXBDS1	West Kissimmee	11.64	3.53%	9.35	2.83%	309.11	93.64%	330.10	100.00%
WSTVFLXARS0	Westville	16.09	10.00%	0.00	0.00%	144.92	90.00%	161.02	100.00%
WLWDFLXARS0	Wildwood	21.61	5.62%	1.05	0.27%	362.19	94.11%	384.85	100.00%
TLHSFLXBDS0	Willis	92.56	34.07%	9.32	3.43%	169.82	62.50%	271.70	100.00%
WLSTFLXARS0	Williston	18.37	3.03%	0.82	0.13%	587.72	96.84%	606.91	100.00%
WNDRFLXARS0	Windermere	3.15	1.60%	1.31	0.66%	192.71	97.74%	197.17	100.00%
WNGRFLXADS0	Winter Garden	26.89	5.74%	13.22	2.82%	428.55	91.44%	468.65	100.00%
WNPKFLXADS1	Winter Park	19.96	4.92%	4.63	1.14%	380.71	93.93%	405.30	100.00%
TLHSFLXGDS0	Woodville	25.62	10.93%	-	0.00%	208.75	89.07%	234.37	100.00%
ZLSPFLXARS0	Zolfo Springs	0.80	0.22%	0.15	0.04%	367.70	99.74%	368.65	100.00%
VLPRFLXADS0	Valparaiso	4.85	3.88%	-	0.00%	120.18	96.12%	125.02	100.00%
	Total	4,747.91	9.77%	267.32	0.55%	43,595.56	89.68%	48,610.79	100.00%

Florida
Feeder Cable
% of Sheath Miles by Cable Type

		Aerial Copper	%	Undgrd. Copper	%	Buried Copper	%	Total Miles	Total %
ALFRFLXARS0	Alford	-	0.00%	0.02	0.14%	10.81	99.86%	10.83	100.00%
ALSPFLXADS0	Altamonte Springs	9.93	18.96%	4.08	7.79%	38.34	73.25%	52.35	100.00%
ALVAFLXARS0	Alva	4.22	10.72%	0.10	0.25%	35.07	89.03%	39.39	100.00%
APPKFLXADS1	Apopka	0.24	2.74%	-	0.00%	8.49	97.26%	8.73	100.00%
ARCDFLXADS0	Arcadia	-	0.00%	0.00	0.16%	1.19	99.84%	1.19	100.00%
ASTRFLXARS0	Astor	0.15	6.18%	0.01	0.32%	2.22	93.51%	2.38	100.00%
AVPKFLXADS0	Avon Park	0.90	1.56%	4.19	7.27%	52.56	91.17%	57.65	100.00%
BAKRFLXADS0	Baker	-	0.00%	0.02	0.09%	25.67	99.91%	25.69	100.00%
BLVWFLXADS0	Belleview	-	0.00%	0.18	1.06%	16.94	98.94%	17.12	100.00%
BVHLFLXADS0	Beverly Hills	4.09	8.13%	13.28	26.39%	32.94	65.48%	50.32	100.00%
TLHSFLXDDS0	Blairstone	9.20	15.15%	20.02	32.97%	31.50	51.88%	60.72	100.00%
BCGRFLXARS0	Boca Grande	0.80	7.68%	0.22	2.14%	9.38	90.18%	10.40	100.00%
BNFYFLXARS0	Bonifay	4.32	16.95%	5.51	21.60%	15.67	61.45%	25.50	100.00%
BNSPFLXADS1	Bonita Springs	0.01	1.95%	-	0.00%	0.67	98.05%	0.68	100.00%
BWLGFLXARS0	Bowling Green	1.36	14.76%	1.08	11.71%	6.79	73.53%	9.23	100.00%
KSSMFLXDRS0	Buenaventura Lakes	0.32	5.28%	-	0.00%	5.73	94.72%	6.04	100.00%
BSHNFLXADS0	Bushnell	0.70	14.97%	0.03	0.59%	3.92	84.44%	4.64	100.00%
TLHSFLXADS0	Calhoun	0.85	6.00%	-	0.00%	13.39	94.00%	14.24	100.00%
CPCRFLXADS0	Cape Coral	0.21	1.66%	0.01	0.04%	12.20	98.30%	12.41	100.00%
CPHZFLXADS0	Cape Haze	0.30	6.36%	-	0.00%	4.44	93.64%	4.75	100.00%
CSLBFLXADS1	Casselberry	0.07	8.94%	0.00	0.43%	0.71	90.62%	0.79	100.00%
CHSWFLXARS0	Chassahowitzka	0.87	2.87%	5.56	18.31%	23.95	78.82%	30.39	100.00%
CHLKFLXARS0	Cherry Lake	4.48	10.83%	0.94	2.27%	35.94	86.90%	41.36	100.00%
CLMTFLXADS0	Clermont	0.04	0.17%	2.03	9.07%	20.35	90.76%	22.43	100.00%
CLTNFLXARS0	Clewiston	0.01	0.46%	-	0.00%	2.88	99.54%	2.89	100.00%
CTDLFLXARS0	Cottondale	8.95	11.36%	59.03	74.90%	10.82	13.74%	78.81	100.00%
CFVLFLXADS0	Crawfordville	10.35	12.08%	34.40	40.15%	40.92	47.76%	85.68	100.00%
CRVWFLXADS0	Crestview	0.18	0.23%	15.97	20.03%	63.60	79.75%	79.76	100.00%
CRRVFLXADS0	Crystal River	0.10	0.24%	9.88	24.13%	30.96	75.63%	40.94	100.00%
CYLKFLXADS0	Cypress Lake	-	0.00%	0.64	4.35%	14.05	95.65%	14.68	100.00%
DDCYFLXADS1	Dade City	-	0.00%	0.01	0.70%	1.98	99.30%	2.00	100.00%
DFSPFLXADS0	Defuniak	-	0.00%	0.01	1.27%	0.44	98.73%	0.45	100.00%
ORCYFLXCRS0	Deltona Lakes	-	0.00%	0.01	0.49%	1.54	99.51%	1.54	100.00%
FTWBFLXBDS0	Denton	1.88	14.39%	0.42	3.21%	10.78	82.41%	13.09	100.00%
DESTFLXADS0	Destin	-	0.00%	0.00	0.67%	0.56	99.33%	0.57	100.00%

Florida
Feeder Cable
% of Sheath Miles by Cable Type

		Aerial Copper	%	Undgrd. Copper	%	Buried Copper	%	Total Miles	Total %
FTMYFLXBDS0	East Fort Myers	-	0.00%	0.01	1.39%	0.80	98.61%	0.81	100.00%
ELFDFLXADS0	Eglin Air Force Base	1.05	4.84%	1.93	8.93%	18.64	86.23%	21.61	100.00%
ESTSFLXADS0	Eustis	-	0.00%	-	0.00%	0.36	100.00%	0.36	100.00%
EVRGFLXARS0	Everglades	5.61	22.45%	1.85	7.41%	17.52	70.14%	24.98	100.00%
OCNFFLXARS0	Forest	-	0.00%	-	0.00%	0.54	100.00%	0.54	100.00%
FTMDFLXARS0	Fort Meade	-	0.00%	0.01	0.17%	3.30	99.83%	3.30	100.00%
FTMBFLXADS0	Fort Myers Beach	-	0.00%	6.99	88.75%	0.89	11.25%	7.88	100.00%
FTMYFLXADS0	Fort Myers Main	7.93	8.00%	40.20	40.58%	50.94	51.42%	99.06	100.00%
CYLKFLXBRS0	Fort Myers Regional Airp	13.37	8.12%	49.93	30.31%	101.44	61.58%	164.74	100.00%
FRPTFLXARS0	Freeport	-	0.00%	0.08	0.48%	17.14	99.52%	17.22	100.00%
TLHSFLXEDS0	FSU	-	0.00%	-	0.00%	2.97	100.00%	2.97	100.00%
GLDLFLXARS0	Glendale	0.07	0.16%	3.13	7.44%	38.85	92.40%	42.05	100.00%
GLGCFLXADS0	Golden Gate	0.22	0.55%	9.50	23.86%	30.08	75.59%	39.79	100.00%
GLRDFLXADS0	Goldenrod	0.04	0.12%	8.10	23.85%	25.81	76.03%	33.95	100.00%
GDRGFLXADS0	Grand Ridge	-	0.00%	13.84	25.27%	40.92	74.73%	54.76	100.00%
GNVLFLXARS0	Greenville	-	0.00%	0.28	2.62%	10.45	97.38%	10.73	100.00%
GNWDFLXARS0	Greenwood	-	0.00%	0.02	0.28%	7.79	99.72%	7.81	100.00%
GVLDFLXARS0	Groveland	-	0.00%	1.94	3.83%	48.55	96.17%	50.49	100.00%
OCALFLXCRS0	Highlands	0.06	0.06%	42.09	43.51%	54.59	56.43%	96.74	100.00%
FTWBFLXADS0	Hollywood	-	0.00%	11.79	28.67%	29.32	71.33%	41.10	100.00%
HMSPFLXARS0	Homosassa	-	0.00%	0.81	5.78%	13.27	94.22%	14.09	100.00%
HOWYFLXARS0	Howey	-	0.00%	10.46	24.41%	32.40	75.59%	42.87	100.00%
IMKLFLXARS0	Immokalee	0.12	1.02%	0.01	0.12%	11.71	98.85%	11.85	100.00%
INVRFLXADS0	Inverness	-	0.00%	1.68	9.38%	16.25	90.62%	17.93	100.00%
KNVLFLXARS0	Kenansville	-	0.00%	5.97	19.68%	24.37	80.32%	30.34	100.00%
KGLKFLXARS0	Kingsley Lake	0.01	0.00%	86.81	45.67%	103.25	54.32%	190.07	100.00%
KSSMFLXADS0	Kissimmee	0.04	0.03%	14.30	11.95%	105.34	88.02%	119.68	100.00%
LBLLFLXADS0	LaBelle	-	0.00%	3.06	8.37%	33.51	91.63%	36.57	100.00%
LDLKFLXADS0	Lady Lake	-	0.00%	10.60	31.92%	22.60	68.08%	33.20	100.00%
LKBRFLXADS1	Lake Brantley	-	0.00%	0.83	3.51%	22.95	96.49%	23.78	100.00%
LKHLFLXARS0	Lake Helen	-	0.00%	8.48	18.43%	37.51	81.57%	45.99	100.00%
LKPCFLXARS0	Lake Placid	-	0.00%	4.80	26.37%	13.39	73.63%	18.19	100.00%
LWTYFLXARS0	Lawtey	-	0.00%	4.42	10.09%	39.43	89.91%	43.85	100.00%
LEE FLXARS0	Lee	-	0.00%	6.34	8.08%	72.14	91.92%	78.49	100.00%
LSBGFLXADS1	Leesburg	-	0.00%	0.61	3.25%	18.02	96.75%	18.63	100.00%

Florida
Feeder Cable

% of Sheath Miles by Cable Type

		Aerial Copper	%	Undgrd. Copper	%	Buried Copper	%	Total Miles	Total %
LHACFLXADS0	Lehigh Acres	-	0.00%	-	0.00%	2.61	100.00%	2.61	100.00%
TLHSFLXCDS0	Mabry	0.09	0.10%	16.34	17.73%	75.77	82.17%	92.21	100.00%
MDSNFLXADS0	Madison	0.09	0.55%	1.74	10.85%	14.23	88.60%	16.06	100.00%
MTLDFLXADS1	Maitland Park	-	0.00%	5.56	22.34%	19.34	77.66%	24.90	100.00%
MALNFLXARS0	Malone	-	0.00%	2.02	11.69%	15.24	88.31%	17.26	100.00%
MOISFLXADS0	Marco Island	0.03	0.03%	22.47	23.15%	74.57	76.82%	97.07	100.00%
MRNNFLXADS0	Mariana	-	0.00%	-	0.00%	1.01	100.00%	1.01	100.00%
FTWBFLXCRS0	Mary Esther	0.37	0.30%	36.98	30.15%	85.30	69.55%	122.65	100.00%
MNTIFLXADS0	Monticello	-	0.00%	0.04	0.94%	3.74	99.06%	3.78	100.00%
MTVRFLXARS0	Montverde	-	0.00%	6.35	12.19%	45.77	87.81%	52.12	100.00%
MRHNFLXARS0	Moore Haven	0.22	0.85%	2.85	11.12%	22.54	88.03%	25.60	100.00%
MTDRFLXADS0	Mount Dora	1.09	1.52%	20.29	28.29%	50.34	70.19%	71.72	100.00%
NPLSFLXDDS0	Naples Moorings	-	0.00%	20.72	34.33%	39.62	65.67%	60.34	100.00%
NPLSFLXCDS0	Naples Southeast	0.05	0.16%	1.82	5.92%	28.87	93.92%	30.74	100.00%
CPCRFLXBDS1	North Cape Coral	0.05	0.05%	40.07	44.57%	49.79	55.38%	89.91	100.00%
NFMYFLXADS0	North Fort Myers	0.91	0.61%	76.66	51.73%	70.61	47.65%	148.18	100.00%
NNPLFLXADS1	North Naples	0.09	0.19%	10.57	23.99%	33.42	75.82%	44.08	100.00%
OCALFLXADS0	Ocala	0.22	0.13%	92.99	55.40%	74.65	44.47%	167.85	100.00%
OKCBFLXADS0	Okeechobee	0.11	0.11%	37.56	39.50%	57.41	60.38%	95.08	100.00%
OKLWFLXADS0	Oklawaha	-	0.00%	1.38	7.54%	16.98	92.46%	18.37	100.00%
ORCYFLXADS0	Orange City	-	0.00%	0.60	2.12%	27.52	97.88%	28.11	100.00%
PANCFLXARS0	Panacea	-	0.00%	0.04	2.80%	1.32	97.20%	1.36	100.00%
TLHSFLXHDS0	Perkins	-	0.00%	2.46	6.37%	36.16	93.63%	38.62	100.00%
PNISFLXADS0	Pine Island	0.32	0.55%	28.10	48.11%	29.99	51.34%	58.41	100.00%
PNLNFLXARS0	Ponce DeLeon	-	0.00%	-	0.00%	1.32	100.00%	1.32	100.00%
PTCTFLXADS0	Port Charlotte	2.91	3.55%	22.04	26.87%	57.07	69.58%	82.02	100.00%
PNGRFLXADS1	Punta Gorda	4.51	2.60%	56.27	32.43%	112.76	64.98%	173.54	100.00%
RYHLFLXARS0	Reynolds Hill	1.14	2.25%	15.21	30.17%	34.06	67.57%	50.40	100.00%
STMKFLXARS0	Saint Marks	0.25	0.93%	13.48	49.71%	13.39	49.36%	27.12	100.00%
SSPRFLXARS0	Salt Springs	0.30	0.59%	7.24	14.25%	43.26	85.15%	50.81	100.00%
SNANFLXARS0	San Antonio	0.06	0.07%	13.67	14.53%	80.36	85.40%	94.09	100.00%
SNISFLXADS0	Sanibel Island	30.71	27.28%	17.28	15.35%	64.59	57.37%	112.59	100.00%
SNRSFLXARS0	Santa Rosa	1.24	3.62%	0.67	1.95%	32.35	94.43%	34.26	100.00%
SGBHFLXARS0	Seagrove	-	0.00%	10.20	22.09%	35.98	77.91%	46.19	100.00%
SBNGFLXADS1	Sebring	0.80	0.98%	34.26	41.81%	46.88	57.21%	81.94	100.00%

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Florida
Feeder Cable
% of Sheath Miles by Cable Type

		Aerial Copper	%	Undgrd. Copper	%	Buried Copper	%	Total Miles	Total %
OCALFLXBDS0	Shady Road	0.15	0.43%	4.66	13.36%	30.03	86.21%	34.84	100.00%
SHLMFLXADS0	Shalimar	0.40	1.98%	1.66	8.27%	18.05	89.75%	20.11	100.00%
SVSPFLXARS0	Silver Springs	-	0.00%	2.10	4.99%	40.08	95.01%	42.18	100.00%
SVSSFLXARS0	Silver Springs Shores	-	0.00%	4.91	62.80%	2.91	37.20%	7.82	100.00%
SNDSFLXARS0	Sneads	0.28	0.55%	2.05	4.03%	48.42	95.41%	50.75	100.00%
SPCPFLXADS0	Sopchoppy	5.69	22.47%	1.12	4.44%	18.51	73.09%	25.33	100.00%
FTMYFLXCDS2	South Fort Myers	0.04	0.14%	4.21	14.13%	25.51	85.73%	29.76	100.00%
SLHLFLXARS0	Spring Lake	-	0.00%	0.20	4.79%	3.90	95.21%	4.10	100.00%
STCDFLXADS0	St. Cloud	1.10	0.69%	29.88	18.71%	128.69	80.60%	159.66	100.00%
STRKFLXADS0	Starke	1.29	1.63%	13.75	17.35%	64.22	81.02%	79.27	100.00%
NFMYFLXBDS0	Suncoast	-	0.00%	3.04	7.94%	35.22	92.06%	38.26	100.00%
TVRSFLXADS0	Tavares	-	0.00%	0.10	3.63%	2.71	96.37%	2.81	100.00%
TLHSFLXFDS0	Thomasville	-	0.00%	0.24	3.55%	6.52	96.45%	6.75	100.00%
TLCHFLXARS0	Trilacoochee	-	0.00%	1.68	3.47%	46.70	96.53%	48.38	100.00%
UMTLFLXARS0	Umatilla	8.16	11.44%	10.89	15.26%	52.29	73.30%	71.33	100.00%
VLPRFLXADS0	Valparaiso	-	0.00%	13.20	14.34%	78.84	85.66%	92.04	100.00%
VLPRFLXADS0	Valparaiso	-	0.00%	2.50	14.26%	15.03	85.74%	17.53	100.00%
WCHLFLXADS0	Wauchula	-	0.00%	1.70	9.90%	15.47	90.10%	17.17	100.00%
KSSMFLXBDS1	West Kissimmee	-	0.00%	0.20	3.92%	4.91	96.08%	5.11	100.00%
WSTVFLXARS0	Westville	3.34	3.02%	38.97	35.15%	68.55	61.83%	110.86	100.00%
WLWDFLXARS0	Wildwood	4.17	3.57%	12.05	10.34%	100.38	86.09%	116.60	100.00%
TLHSFLXBDS0	Willis	-	0.00%	-	0.00%	0.35	100.00%	0.35	100.00%
WLSTFLXARS0	Williston	7.49	11.05%	3.90	5.74%	56.46	83.21%	67.85	100.00%
WNDRFLXARS0	Windermere	1.02	5.99%	0.96	5.64%	15.05	88.37%	17.03	100.00%
WNGRFLXADS0	Winter Garden	-	0.00%	11.53	24.85%	34.87	75.15%	46.40	100.00%
WNPKFLXADS1	Winter Park	0.36	0.28%	60.66	46.14%	70.43	53.58%	131.45	100.00%
TLHSFLXGDS0	Woodville	1.94	1.90%	20.13	19.70%	80.12	78.40%	102.19	100.00%
ZLSPFLXARS0	Zolfo Springs	-	0.00%	0.20	3.92%	4.91	96.08%	5.11	100.00%
Total		174.05	3.06%	1,392.92	24.48%	4,122.41	72.46%	5,689.38	100.00%

Florida Plant Mix - Forward Looking

Fiber

Density Group	Aerial Lines	Aerial Percent	Underground Lines	Underground Percent	Buried Lines	Buried Percent	Total Lines	Total Percent
0 - 5	2,923	2.0%	16,075	11.0%	127,137	87.0%	146,134	100%
6 - 100	3,589	2.2%	29,689	18.2%	129,850	79.6%	163,128	100%
101-200	4,323	2.4%	43,409	24.1%	132,389	73.5%	180,121	100%
201 - 650	4,928	2.5%	57,163	29.0%	135,024	68.5%	197,115	100%
651 - 850	5,781	2.7%	70,870	33.1%	137,458	64.2%	214,108	100%
851 - 2550	6,471	2.8%	84,583	36.6%	140,048	60.6%	231,102	100%
2551 - 5000	7,195	2.9%	98,494	39.7%	142,407	57.4%	248,096	100%
5001 - 10000	7,688	2.9%	112,133	42.3%	145,269	54.8%	265,089	100%
> 10001	8,462	3.0%	125,809	44.6%	147,811	52.4%	282,083	100%
Total	51,359	2.7%	638,225	33.1%	1,237,392	64.2%	1,926,976	100%

Florida Plant Mix - Trended

Fiber

Density Group	Aerial Lines	Trend Lines	Aerial Percent	Underground Lines	Trend Lines	Underground Percent	Buried Lines	Trend Lines	Buried Percent	Total Lines	Total Percent
0 - 5	193	2,671	1.8%	799	14,424	9.9%	9,627	129,039	88.3%	146,134	100%
6 - 100	4,263	3,322	2.0%	21,941	27,963	17.1%	151,612	131,843	80.8%	163,128	100%
101-200	2,955	3,973	2.2%	26,583	41,501	23.0%	124,021	134,647	74.8%	180,121	100%
201 - 650	5,796	4,625	2.3%	62,827	55,040	27.9%	225,833	137,450	69.7%	197,115	100%
651 - 850	2,171	5,276	2.5%	20,418	68,579	32.0%	63,371	140,254	65.5%	214,108	100%
851 - 2550	15,187	5,927	2.6%	203,882	82,118	35.5%	384,312	143,058	61.9%	231,102	100%
2551 - 5000	7,673	6,578	2.7%	123,906	95,656	38.6%	187,619	145,861	58.8%	248,096	100%
5001 - 10000	3,160	7,229	2.7%	81,774	109,195	41.2%	87,664	148,665	56.1%	265,089	100%
> 10001	6,083	7,881	2.8%	75,079	122,734	43.5%	28,225	151,469	53.7%	282,083	100%
Total	47,481	47,481	2.5%	617,209	617,209	32.0%	1,262,285	1,262,285	65.5%	1,926,976	100%

Florida
Fiber Cable
% of Sheath Miles by Cable Type

		Aerial Fiber	%	Undgrd. Fiber	%	Buried Fiber	%	Total Miles	Total %
BAKRFLXADS0	Baker	-	0.00%	0.02	0.52%	4.39	99.48%	4.41	100.00%
CRVWFLXADS0	Crestview	-	0.00%	8.15	19.42%	33.82	80.58%	41.97	100.00%
DFSPFLXADS0	Defuniak	4.51	9.78%	0.60	1.31%	41.00	88.91%	46.11	100.00%
FRPTFLXARS0	Freeport	0.00	0.00%	0.80	5.16%	14.77	94.84%	15.58	100.00%
PNLNFLXARS0	Ponce DeLeon	-	0.00%	0.29	5.83%	4.65	94.17%	4.94	100.00%
DESTFLXADS0	Destin	-	0.00%	2.11	5.87%	33.89	94.13%	36.00	100.00%
SNRSFLXARS0	Santa Rosa	14.41	80.78%	0.19	1.08%	3.24	18.14%	17.84	100.00%
SGBHFLXARS0	Seagrove	2.47	27.31%	0.10	1.14%	6.47	71.55%	9.05	100.00%
FTWBFLXBDS0	Denton	-	0.00%	0.80	11.26%	6.30	88.74%	7.10	100.00%
FTWBFLXADS0	Hollywood	0.08	0.41%	4.98	26.92%	13.45	72.67%	18.50	100.00%
FTWBFLXCRS0	Mary Esther	-	0.00%	0.09	1.60%	5.82	98.40%	5.91	100.00%
MRNNFLXADS0	Mariana	4.75	10.37%	4.79	10.46%	36.27	79.17%	45.82	100.00%
ALFRFLXARS0	Alford	-	0.00%	-	0.00%	7.24	100.00%	7.24	100.00%
BNFYFLXARS0	Bonifay	-	0.00%	0.05	0.27%	16.91	99.73%	16.95	100.00%
CTDLFLXARS0	Cottondale	-	0.00%	-	0.00%	10.05	100.00%	10.05	100.00%
GNWDFLXARS0	Greenwood	0.84	7.28%	0.28	2.42%	10.43	90.30%	11.55	100.00%
MALNFLXARS0	Malone	0.19	6.72%	-	0.00%	2.62	93.28%	2.81	100.00%
WSTVFLXARS0	Westville	6.37	40.28%	0.02	0.12%	9.43	59.60%	15.82	100.00%
SHLMFLXADS0	Shalimar	-	0.00%	0.29	1.66%	17.30	98.34%	17.59	100.00%
ELFDFLXADS0	Eglin Air Force Base	-	0.00%	1.62	7.58%	19.76	92.42%	21.38	100.00%
VLPRFLXADS0	Valparaiso	-	0.00%	1.62	28.97%	3.96	71.03%	5.58	100.00%
GDRGFLXADS0	Grand Ridge	0.26	0.89%	-	0.00%	29.44	99.11%	29.71	100.00%
TLHSFLXADS0	Calhoun	4.85	8.02%	54.92	90.85%	0.68	1.13%	60.45	100.00%
TLHSFLXBDS0	Willis	3.50	12.46%	16.75	59.70%	7.81	27.84%	28.06	100.00%
TLHSFLXFDS0	Thomasville	-	0.00%	5.67	43.38%	7.40	56.62%	13.08	100.00%
TLHSFLXHDS0	Perkins	-	0.00%	1.70	10.98%	13.82	89.02%	15.52	100.00%
CFVLFLXADS0	Crawfordville	-	0.00%	0.34	1.66%	19.95	98.34%	20.29	100.00%
GNVLFLXARS0	Greenville	-	0.00%	0.07	0.23%	29.73	99.77%	29.80	100.00%
MDSNFLXADS0	Madison	3.41	16.15%	0.07	0.35%	17.62	83.50%	21.11	100.00%
MNTIFLXADS0	Monticello	-	0.00%	0.16	0.78%	20.07	99.22%	20.23	100.00%
STRKFLXADS0	Starke	-	0.00%	0.31	1.56%	19.81	98.44%	20.12	100.00%
KGLKFLXARS0	Kingsley Lake	-	0.00%	0.02	0.17%	10.21	99.83%	10.23	100.00%
LWTYFLXARS0	Lawtey	-	0.00%	-	0.00%	2.33	100.00%	2.33	100.00%
TLHSFLXEDS0	FSU	0.15	3.54%	4.08	96.46%	-	0.00%	4.23	100.00%

Florida
Fiber Cable
% of Sheath Miles by Cable Type

		Aerial Fiber	%	Undgrd. Fiber	%	Buried Fiber	%	Total Miles	Total %
TLHSFLXCDS0	Mabry	0.93	2.13%	19.74	45.23%	22.98	52.64%	43.65	100.00%
TLHSFLXDDS0	Blairstone	9.86	11.92%	14.64	17.69%	58.26	70.39%	82.76	100.00%
TLHSFLXGDS0	Woodville	-	0.00%	3.23	25.03%	9.67	74.97%	12.89	100.00%
ASTRFLXARS0	Astor	0.01	0.12%	-	0.00%	7.49	99.88%	7.50	100.00%
BSHNFLXADS0	Bushnell	-	0.00%	1.10	2.08%	52.09	97.92%	53.19	100.00%
CLMTFLXADS0	Clermont	0.37	0.53%	8.91	12.89%	59.90	86.58%	69.19	100.00%
DDCYFLXADS1	Dade City	-	0.00%	1.35	10.56%	11.44	89.44%	12.79	100.00%
ESTSFLXADS0	Eustis	-	0.00%	4.04	10.49%	34.43	89.51%	38.47	100.00%
GVLDFLXARS0	Groveland	0.21	0.79%	0.54	1.99%	26.47	97.22%	27.22	100.00%
HOWYFLXARS0	Howey	-	0.00%	0.03	0.52%	6.58	99.48%	6.61	100.00%
LDLKFLXADS0	Lady Lake	-	0.00%	4.91	13.36%	31.85	86.64%	36.76	100.00%
LSBGFLXADS1	Leesburg	0.03	0.06%	23.23	42.64%	31.22	57.30%	54.49	100.00%
MTDRFLXADS0	Mount Dora	-	0.00%	6.46	29.50%	15.45	70.50%	21.91	100.00%
SNANFLXARS0	San Antonio	-	0.00%	1.15	8.05%	13.07	91.95%	14.22	100.00%
TVRSFLXADS0	Tavares	-	0.00%	7.05	31.50%	15.32	68.50%	22.37	100.00%
TLCHFLXARS0	Trilacoochee	-	0.00%	0.13	0.54%	24.30	99.46%	24.43	100.00%
UMTLFLXARS0	Umatilla	-	0.00%	0.81	2.51%	31.58	97.49%	32.39	100.00%
WLWDFLXARS0	Wildwood	-	0.00%	2.15	8.51%	23.13	91.49%	25.28	100.00%
OCALFLXADS0	Ocala	0.25	0.24%	36.87	35.18%	67.68	64.58%	104.80	100.00%
INVRFLXADS0	Inverness	1.60	3.89%	5.98	14.60%	33.39	81.51%	40.96	100.00%
HMSPFLXARS0	Homosassa	0.02	0.08%	2.19	11.47%	16.86	88.45%	19.06	100.00%
OCALFLXCRS0	Highlands	-	0.00%	7.15	32.95%	14.56	67.05%	21.71	100.00%
OCNFFLXARS0	Forest	0.37	2.12%	0.15	0.87%	17.07	97.01%	17.60	100.00%
CRRVFLXADS0	Crystal River	-	0.00%	5.25	16.23%	27.09	83.77%	32.34	100.00%
CHSWFLXARS0	Chassahowitzka	-	0.00%	-	0.00%	0.28	100.00%	0.28	100.00%
BVHLFLXADS0	Beverly Hills	-	0.00%	1.58	6.58%	22.40	93.42%	23.98	100.00%
BLVWFLXADS0	Belleview	-	0.00%	4.49	5.21%	81.78	94.79%	86.27	100.00%
OKLWFLXADS0	Oklawaha	-	0.00%	0.39	4.60%	8.16	95.40%	8.55	100.00%
SSPRFLXARS0	Salt Springs	-	0.00%	0.03	0.42%	8.09	99.58%	8.12	100.00%
OCALFLXBDS0	Shady Road	0.04	0.07%	9.31	15.74%	49.80	84.19%	59.15	100.00%
SVSPFLXARS0	Silver Springs	0.39	4.42%	1.20	13.47%	7.30	82.11%	8.89	100.00%
SVSSFLXARS0	Silver Springs Shores	0.04	0.18%	4.19	20.76%	15.96	79.06%	20.19	100.00%
WLSTFLXARS0	Williston	-	0.00%	0.85	5.39%	14.95	94.61%	15.80	100.00%
APPKFLXADS1	Apopka	-	0.00%	21.57	33.83%	42.19	66.17%	63.76	100.00%

Florida
Fiber Cable
% of Sheath Miles by Cable Type

		Aerial Fiber	%	Undgrd. Fiber	%	Buried Fiber	%	Total Miles	Total %
KNVLFLXARS0	Kenansville	-	0.00%	-	0.00%	37.04	100.00%	37.04	100.00%
KSSMFLXADS0	Kissimmee	0.89	0.58%	31.36	20.54%	120.46	78.88%	152.70	100.00%
MTVRFLXARS0	Montverde	-	0.00%	0.09	2.33%	3.65	97.67%	3.74	100.00%
STCDFLXADS0	St. Cloud	2.10	2.59%	4.04	5.00%	74.75	92.41%	80.89	100.00%
WNDRFLXARS0	Windermere	-	0.00%	6.10	29.87%	14.32	70.13%	20.42	100.00%
WNGRFLXADS0	Winter Garden	-	0.00%	21.96	28.06%	56.29	71.94%	78.25	100.00%
KSSMFLXBDS1	West Kissimmee	-	0.00%	42.67	59.24%	29.37	40.76%	72.04	100.00%
KSSMFLXDRS0	Buenaventura Lakes	-	0.00%	0.43	2.08%	20.28	97.92%	20.71	100.00%
GLRDFLXADS0	Goldenrod	1.41	3.71%	22.98	60.36%	13.68	35.92%	38.08	100.00%
WNPKFLXADS1	Winter Park	-	0.00%	48.66	69.21%	21.64	30.79%	70.30	100.00%
CSLBFLXADS1	Casselberry	-	0.00%	6.89	50.26%	6.82	49.74%	13.71	100.00%
ALSPFLXADS0	Altamonte Springs	-	0.00%	25.12	62.65%	14.98	37.35%	40.09	100.00%
LKBRFLXADS1	Lake Brantley	-	0.00%	16.75	49.54%	17.05	50.46%	33.80	100.00%
MTLDFLXADS1	Maitland Park	0.04	0.12%	5.92	18.91%	25.37	80.97%	31.33	100.00%
ORCYFLXADS0	Orange City	-	0.00%	0.36	2.57%	13.63	97.43%	13.99	100.00%
LKHLFLXARS0	Lake Helen	-	0.00%	0.07	1.61%	4.40	98.39%	4.48	100.00%
ORCYFLXCRS0	Deltona Lakes	-	0.00%	0.67	2.46%	26.52	97.54%	27.19	100.00%
FTMYFLXADS0	Fort Myers Main	-	0.00%	21.17	57.29%	15.78	42.71%	36.94	100.00%
ALVAFLXARS0	Alva	-	0.00%	-	0.00%	17.31	100.00%	17.31	100.00%
CPCRFLXADS0	Cape Coral	-	0.00%	7.67	37.14%	12.99	62.86%	20.66	100.00%
CYLKFLXADS0	Cypress Lake	1.27	1.35%	60.19	63.99%	32.59	34.66%	94.05	100.00%
FTMYFLXBDS0	East Fort Myers	-	0.00%	15.44	46.36%	17.86	53.64%	33.30	100.00%
FTMBFLXADS0	Fort Myers Beach	-	0.00%	1.90	68.98%	0.85	31.02%	2.75	100.00%
LHACFLXADS0	Lehigh Acres	0.09	0.19%	4.34	9.58%	40.88	90.23%	45.31	100.00%
CPCRFLXBDS1	North Cape Coral	-	0.00%	16.03	38.48%	25.62	61.52%	41.65	100.00%
NFMYFLXADS0	North Fort Myers	3.99	7.33%	15.15	27.83%	35.30	64.85%	54.43	100.00%
PNISFLXADS0	Pine Island	-	0.00%	0.03	0.34%	9.73	99.66%	9.76	100.00%
SNISFLXADS0	Sanibel Island	-	0.00%	4.42	100.00%	-	0.00%	4.42	100.00%
FTMYFLXCDS2	South Fort Myers	-	0.00%	22.71	50.80%	21.99	49.20%	44.70	100.00%
CYLKFLXBRS0	Fort Myers Regional Airp	0.39	1.83%	11.12	52.80%	9.55	45.37%	21.06	100.00%
NFMYFLXBDS0	Suncoast	0.74	10.98%	0.65	9.70%	5.31	79.32%	6.69	100.00%
ARCDFLXADS0	Arcadia	-	0.00%	2.06	4.33%	45.54	95.67%	47.60	100.00%
BCGRFLXARS0	Boca Grande	-	0.00%	3.31	65.37%	1.75	34.63%	5.07	100.00%
CPHZFLXADS0	Cape Haze	-	0.00%	1.72	6.64%	24.16	93.36%	25.88	100.00%

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April 17, 2000

Florida
Fiber Cable
% of Sheath Miles by Cable Type

		Aerial Fiber	%	Undgrd. Fiber	%	Buried Fiber	%	Total Miles	Total %
CLTNFLXARS0	Clewiston	0.18	0.40%	1.27	2.86%	43.11	96.74%	44.56	100.00%
LBLLFLXADS0	LaBelle	0.25	1.03%	2.08	8.70%	21.61	90.27%	23.94	100.00%
MRHNFLXARS0	Moore Haven	-	0.00%	0.11	0.43%	25.34	99.57%	25.45	100.00%
PTCTFLXADS0	Port Charlotte	-	0.00%	12.66	17.39%	60.14	82.61%	72.80	100.00%
PNGRFLXADS1	Punta Gorda	14.60	14.08%	14.66	14.14%	74.41	71.78%	103.67	100.00%
AVPKFLXADS0	Avon Park	-	0.00%	3.62	9.52%	34.43	90.48%	38.05	100.00%
BWLGFLXARS0	Bowling Green	-	0.00%	0.75	11.15%	5.98	88.85%	6.73	100.00%
FTMDFLXARS0	Fort Meade	-	0.00%	0.08	1.22%	6.14	98.78%	6.22	100.00%
LKPCFLXARS0	Lake Placid	-	0.00%	4.20	12.15%	30.37	87.85%	34.57	100.00%
OKCBFLXADS0	Okeechobee	-	0.00%	8.57	7.83%	100.91	92.17%	109.48	100.00%
SBNGFLXADS1	Sebring	0.05	0.11%	10.44	22.37%	36.18	77.52%	46.68	100.00%
SLHLFLXARS0	Spring Lake	-	0.00%	2.73	11.70%	20.61	88.30%	23.34	100.00%
WCHLFLXADS0	Wauchula	-	0.00%	1.11	3.53%	30.22	96.47%	31.33	100.00%
ZLSPFLXARS0	Zolfo Springs	-	0.00%	0.25	1.62%	15.08	98.38%	15.33	100.00%
NPLSFLXCDS0	Naples Southeast	3.34	9.75%	10.48	30.56%	20.47	59.69%	34.29	100.00%
BNSPFLXADS1	Bonita Springs	1.59	2.63%	12.76	21.15%	45.98	76.22%	60.32	100.00%
GLGCFLXADS0	Golden Gate	0.03	0.06%	4.37	8.98%	44.26	90.96%	48.66	100.00%
IMKLFLXARS0	Immokalee	0.30	0.59%	0.32	0.63%	50.61	98.78%	51.23	100.00%
MOISFLXADS0	Marco Island	2.89	28.35%	0.60	5.91%	6.69	65.74%	10.18	100.00%
NPLSFLXDDS0	Naples Moorings	-	0.00%	34.06	67.62%	16.31	32.38%	50.37	100.00%
NNPLFLXADS1	North Naples	0.09	0.21%	11.08	26.09%	31.28	73.69%	42.45	100.00%
	Total	94.13	2.42%	869.80	22.39%	2,921.02	75.19%	3,884.95	100.00%

Sprint Florida, Inc.

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Feeder Fill Summary

Density zones	Effective Fill	BCPM Input	Actual Fill
1	36.8%	54.69%	47.2%
2	43.4%	54.95%	47.5%
3	45.7%	55.22%	47.7%
4	46.6%	55.48%	48.0%
5	48.8%	55.74%	48.2%
6	46.8%	56.01%	48.5%
7	49.3%	56.27%	48.8%
8	47.8%	56.53%	49.0%
9	54.7%	56.80%	49.3%
Total	48.5%	56.05%	48.5%

CIII	Density	Feeder Fill	Total Lines Served in Grid	Eng. Lines	Standard Cable Size	Effective Fill	Sum of Lines by Density	Sum of Standard Cable Pairs	Fill by Density Zone
VLPRFLXADS0	1	54.69%	1	2	12	16.7%			
VLPRFLXADS0	1	54.69%	1	2	12	16.7%			
ALFRFLXARS0	1	54.69%	1	3	12	25.0%			
FRPTFLXARS0	1	54.69%	1	3	12	25.0%			
FRPTFLXARS0	1	54.69%	1	3	12	25.0%			
GNVLFLXARS0	1	54.69%	1	2	12	16.7%			
GNVLFLXARS0	1	54.69%	1	2	12	16.7%			
KGLKFLXARS0	1	54.69%	1	3	12	25.0%			
LEE FLXARS0	1	54.69%	1	3	12	25.0%			
LEE FLXARS0	1	54.69%	1	3	12	25.0%			
MDSNFLXADS0	1	54.69%	1	3	12	25.0%			
MNTIFLXADS0	1	54.69%	1	3	12	25.0%			
TLHSFLXCDS0	1	54.69%	1	2	12	16.7%			
TLHSFLXCDS0	1	54.69%	1	2	12	16.7%			
VLPRFLXADS0	1	54.69%	1	3	12	25.0%			
GNWDFLXARS0	1	54.69%	2	4	12	33.3%			
PANCFLXARS0	1	54.69%	2	3	12	25.0%			
SPCPFLXADS0	1	54.69%	1	3	12	25.0%			
SPCPFLXADS0	1	54.69%	1	3	12	25.0%			
TLHSFLXFDS0	1	54.69%	2	4	12	33.3%			
VLPRFLXADS0	1	54.69%	2	4	12	33.3%			
FTWBFLXBDS0	1	54.69%	2	4	12	33.3%			
GNVLFLXARS0	1	54.69%	2	4	12	33.3%			
GNVLFLXARS0	1	54.69%	2	4	12	33.3%			
GNVLFLXARS0	1	54.69%	2	4	12	33.3%			
GNVLFLXARS0	1	54.69%	2	4	12	33.3%			
LEE FLXARS0	1	54.69%	2	5	12	41.7%			
LEE FLXARS0	1	54.69%	2	5	12	41.7%			
LEE FLXARS0	1	54.69%	2	5	12	41.7%			
MNTIFLXADS0	1	54.69%	2	5	12	41.7%			
MNTIFLXADS0	1	54.69%	2	5	12	41.7%			
MNTIFLXADS0	1	54.69%	2	5	12	41.7%			
MNTIFLXADS0	1	54.69%	2	5	12	41.7%			
MNTIFLXADS0	1	54.69%	2	5	12	41.7%			
MNTIFLXADS0	1	54.69%	2	5	12	41.7%			
MRNNFLXADS0	1	54.69%	2	4	12	33.3%			
PANCFLXARS0	1	54.69%	2	5	12	41.7%			
ALFRFLXARS0	1	54.69%	2	5	12	41.7%			
BNFYFLXARS0	1	54.69%	3	5	12	41.7%			
CHLKFLXARS0	1	54.69%	3	6	12	50.0%			
CRVWFLXADS0	1	54.69%	3	5	12	41.7%			
CRVWFLXADS0	1	54.69%	3	5	12	41.7%			
FRPTFLXARS0	1	54.69%	3	5	12	41.7%			
KGLKFLXARS0	1	54.69%	2	5	12	41.7%			
BAKRFLXADS0	1	54.69%	3	6	12	50.0%			
GNWDFLXARS0	1	54.69%	3	6	12	50.0%			
GNWDFLXARS0	1	54.69%	3	6	12	50.0%			
SPCPFLXADS0	1	54.69%	3	6	12	50.0%			
SPCPFLXADS0	1	54.69%	3	6	12	50.0%			
SPCPFLXADS0	1	54.69%	3	6	12	50.0%			
SPCPFLXADS0	1	54.69%	3	6	12	50.0%			
SPCPFLXADS0	1	54.69%	3	6	12	50.0%			
TLHSFLXCDS0	1	54.69%	3	6	12	50.0%			
ALFRFLXARS0	1	54.69%	4	7	12	58.3%			
ALFRFLXARS0	1	54.69%	4	7	12	58.3%			

CIll	Density	Feeder Fill	Total Lines Served in Grid	Eng. Lines	Standard Cable Size	Effective Fill	Sum of Lines by Density	Sum of Standard Cable Pairs	Fill by Density Zone
BNFYFLXARS0	1	54.69%	3	7	12	58.3%			
BNFYFLXARS0	1	54.69%	3	7	12	58.3%			
CHLKFLXARS0	1	54.69%	4	7	12	58.3%			
CTDLFLXARS0	1	54.69%	3	7	12	58.3%			
LEE FLXARS0	1	54.69%	3	7	12	58.3%			
LEE FLXARS0	1	54.69%	3	7	12	58.3%			
MNTIFLXADS0	1	54.69%	3	7	12	58.3%			
MNTIFLXADS0	1	54.69%	3	7	12	58.3%			
SNRSFLXARS0	1	54.69%	3	7	12	58.3%			
STMKFLXARS0	1	54.69%	3	7	12	58.3%			
BAKRFLXADS0	1	54.69%	4	8	12	66.7%			
CRVWFLXADS0	1	54.69%	4	8	12	66.7%			
FRPTFLXARS0	1	54.69%	4	8	12	66.7%			
FRPTFLXARS0	1	54.69%	4	8	12	66.7%			
FRPTFLXARS0	1	54.69%	4	8	12	66.7%			
GNVLFLXARS0	1	54.69%	4	8	12	66.7%			
GNVLFLXARS0	1	54.69%	4	8	12	66.7%			
CHLKFLXARS0	1	54.69%	5	9	12	75.0%			
GNWDFLXARS0	1	54.69%	4	8	12	66.7%			
LEE FLXARS0	1	54.69%	4	9	12	75.0%			
LEE FLXARS0	1	54.69%	4	9	12	75.0%			
MALNFLXARS0	1	54.69%	5	9	12	75.0%			
MDSNFLXADS0	1	54.69%	5	9	12	75.0%			
MNTIFLXADS0	1	54.69%	5	9	12	75.0%			
MNTIFLXADS0	1	54.69%	5	9	12	75.0%			
MNTIFLXADS0	1	54.69%	5	9	12	75.0%			
MNTIFLXADS0	1	54.69%	5	9	12	75.0%			
MNTIFLXADS0	1	54.69%	5	9	12	75.0%			
SNDSFLXARS0	1	54.69%	4	9	12	75.0%			
SPCPFLXADS0	1	54.69%	4	8	12	66.7%			
SPCPFLXADS0	1	54.69%	4	8	12	66.7%			
TLHSFLXGDS0	1	54.69%	4	9	12	75.0%			
ALFRFLXARS0	1	54.69%	5	10	12	83.3%			
FTWBFLXBDS0	1	54.69%	5	10	12	83.3%			
GNVLFLXARS0	1	54.69%	5	9	12	75.0%			
KGLKFLXARS0	1	54.69%	5	9	12	75.0%			
PNLNFLXARS0	1	54.69%	5	10	12	83.3%			
RYHLFLXARS0	1	54.69%	5	10	12	83.3%			
TLHSFLXCDS0	1	54.69%	5	10	12	83.3%			
TLHSFLXCDS0	1	54.69%	5	10	12	83.3%			
FRPTFLXARS0	1	54.69%	5	10	12	83.3%			
CFVLFLXADS0	1	54.69%	6	11	12	91.7%			
FTWBFLXBDS0	1	54.69%	6	12	12	100.0%			
GNVLFLXARS0	1	54.69%	6	11	12	91.7%			
GNVLFLXARS0	1	54.69%	6	11	12	91.7%			
MNTIFLXADS0	1	54.69%	6	11	12	91.7%			
MNTIFLXADS0	1	54.69%	6	11	12	91.7%			
MNTIFLXADS0	1	54.69%	6	11	12	91.7%			
MNTIFLXADS0	1	54.69%	6	11	12	91.7%			
SPCPFLXADS0	1	54.69%	6	11	12	91.7%			
SPCPFLXADS0	1	54.69%	6	11	12	91.7%			
TLHSFLXCDS0	1	54.69%	6	12	12	100.0%			
ALFRFLXARS0	1	54.69%	6	12	12	100.0%			
ALFRFLXARS0	1	54.69%	6	12	12	100.0%			
BAKRFLXADS0	1	54.69%	6	12	12	100.0%			

CIII	Density	Feeder Fill	Total Lines Served in Grid	Eng. Lines	Standard Cable Size	Effective Fill	Sum of Lines by Density	Sum of Standard Cable Pairs	Fill by Density Zone
BAKRFLXADS0	1	54.69%	6	12	12	100.0%			
CHLKFLXARS0	1	54.69%	6	12	12	100.0%			
SNDSFLXARS0	1	54.69%	7	13	18	72.2%			
TLHSFLXDDS0	1	54.69%	6	12	12	100.0%			
FRPTFLXARS0	1	54.69%	7	13	18	72.2%			
FRPTFLXARS0	1	54.69%	7	13	18	72.2%			
GNWDFLXARS0	1	54.69%	7	13	18	72.2%			
LEE FLXARS0	1	54.69%	7	13	18	72.2%			
MDSNFLXADS0	1	54.69%	7	13	18	72.2%			
MDSNFLXADS0	1	54.69%	7	13	18	72.2%			
MNTIFLXADS0	1	54.69%	7	13	18	72.2%			
MNTIFLXADS0	1	54.69%	7	13	18	72.2%			
MNTIFLXADS0	1	54.69%	7	13	18	72.2%			
MNTIFLXADS0	1	54.69%	7	13	18	72.2%			
MNTIFLXADS0	1	54.69%	7	13	18	72.2%			
STMKFLXARS0	1	54.69%	7	13	18	72.2%			
BAKRFLXADS0	1	54.69%	7	14	18	77.8%			
BAKRFLXADS0	1	54.69%	7	14	18	77.8%			
FRPTFLXARS0	1	54.69%	8	14	18	77.8%			
GNVLFLXARS0	1	54.69%	8	15	18	83.3%			
GNVLFLXARS0	1	54.69%	8	15	18	83.3%			
GNVLFLXARS0	1	54.69%	8	15	18	83.3%			
GNVLFLXARS0	1	54.69%	8	15	18	83.3%			
GNVLFLXARS0	1	54.69%	8	15	18	83.3%			
MALNFLXARS0	1	54.69%	8	15	18	83.3%			
MNTIFLXADS0	1	54.69%	8	15	18	83.3%			
CHLKFLXARS0	1	54.69%	8	16	18	88.9%			
FRPTFLXARS0	1	54.69%	8	15	18	83.3%			
MDSNFLXADS0	1	54.69%	8	16	18	88.9%			
RYHLFLXARS0	1	54.69%	8	16	18	88.9%			
GNVLFLXARS0	1	54.69%	9	17	18	94.4%			
GNVLFLXARS0	1	54.69%	9	17	18	94.4%			
GNVLFLXARS0	1	54.69%	9	17	18	94.4%			
GNVLFLXARS0	1	54.69%	9	17	18	94.4%			
GNVLFLXARS0	1	54.69%	9	17	18	94.4%			
GNVLFLXARS0	1	54.69%	9	17	18	94.4%			
STMKFLXARS0	1	54.69%	9	16	18	88.9%			
BAKRFLXADS0	1	54.69%	9	17	18	94.4%			
CHLKFLXARS0	1	54.69%	9	17	18	94.4%			
CTDLFLXARS0	1	54.69%	9	18	18	100.0%			
GNWDFLXARS0	1	54.69%	9	17	18	94.4%			
PNLNFLXARS0	1	54.69%	9	17	18	94.4%			
TLHSFLXCDS0	1	54.69%	9	17	18	94.4%			
TLHSFLXGDS0	1	54.69%	9	17	18	94.4%			
FRPTFLXARS0	1	54.69%	9	18	18	100.0%			
GNVLFLXARS0	1	54.69%	10	18	18	100.0%			
BAKRFLXADS0	1	54.69%	10	19	25	76.0%			
BNFYFLXARS0	1	54.69%	10	19	25	76.0%			
BNFYFLXARS0	1	54.69%	10	19	25	76.0%			
LEE FLXARS0	1	54.69%	10	19	25	76.0%			
MNTIFLXADS0	1	54.69%	10	19	25	76.0%			
MNTIFLXADS0	1	54.69%	10	19	25	76.0%			
MNTIFLXADS0	1	54.69%	10	19	25	76.0%			
TLHSFLXCDS0	1	54.69%	10	19	25	76.0%			
TLHSFLXCDS0	1	54.69%	10	19	25	76.0%			

CIII	Density	Feeder Fill	Total Lines Served in Grid	Eng. Lines	Standard Cable Size	Effective Fill	Sum of Lines by Density	Sum of Standard Cable Pairs	Fill by Density Zone
BAKRFLXADS0	1	54.69%	10	20	25	80.0%			
GNVLFLXARS0	1	54.69%	11	20	25	80.0%			
GNVLFLXARS0	1	54.69%	11	20	25	80.0%			
GNVLFLXARS0	1	54.69%	11	20	25	80.0%			
GNVLFLXARS0	1	54.69%	11	20	25	80.0%			
GNVLFLXARS0	1	54.69%	11	20	25	80.0%			
GNWDFLXARS0	1	54.69%	10	20	25	80.0%			
ALFRFLXARS0	1	54.69%	11	21	25	84.0%			
BNFYFLXARS0	1	54.69%	11	20	25	80.0%			
GNWDFLXARS0	1	54.69%	11	21	25	84.0%			
CFVLFLXADS0	1	54.69%	11	21	25	84.0%			
MNTIFLXADS0	1	54.69%	11	21	25	84.0%			
MNTIFLXADS0	1	54.69%	11	21	25	84.0%			
MNTIFLXADS0	1	54.69%	11	21	25	84.0%			
MNTIFLXADS0	1	54.69%	11	21	25	84.0%			
SPCPFLXADS0	1	54.69%	11	21	25	84.0%			
FRPTFLXARS0	1	54.69%	12	23	25	92.0%			
STRKFLXADS0	1	54.69%	12	22	25	88.0%			
TLHSFLXCDS0	1	54.69%	12	23	25	92.0%			
TLHSFLXGDS0	1	54.69%	12	22	25	88.0%			
TLHSFLXGDS0	1	54.69%	12	22	25	88.0%			
ALFRFLXARS0	1	54.69%	12	23	25	92.0%			
BAKRFLXADS0	1	54.69%	13	23	25	92.0%			
FRPTFLXARS0	1	54.69%	12	23	25	92.0%			
GNVLFLXARS0	1	54.69%	13	24	25	96.0%			
GNVLFLXARS0	1	54.69%	13	24	25	96.0%			
MNTIFLXADS0	1	54.69%	13	24	25	96.0%			
TLHSFLXDDS0	1	54.69%	13	24	25	96.0%			
TLHSFLXDDS0	1	54.69%	13	24	25	96.0%			
BAKRFLXADS0	1	54.69%	13	24	25	96.0%			
CHLKFLXARS0	1	54.69%	13	24	25	96.0%			
CTDLFLXARS0	1	54.69%	13	24	25	96.0%			
MDSNFLXADS0	1	54.69%	13	24	25	96.0%			
STRKFLXADS0	1	54.69%	13	24	25	96.0%			
LEE FLXARS0	1	54.69%	13	25	25	100.0%			
CHLKFLXARS0	1	54.69%	14	26	50	52.0%			
GNWDFLXARS0	1	54.69%	14	26	50	52.0%			
MNTIFLXADS0	1	54.69%	14	26	50	52.0%			
MNTIFLXADS0	1	54.69%	14	26	50	52.0%			
MNTIFLXADS0	1	54.69%	14	26	50	52.0%			
SNRSFLXARS0	1	54.69%	14	26	50	52.0%			
GNVLFLXARS0	1	54.69%	15	27	50	54.0%			
GNWDFLXARS0	1	54.69%	14	26	50	52.0%			
MRNNFLXADS0	1	54.69%	14	27	50	54.0%			
SPCPFLXADS0	1	54.69%	14	27	50	54.0%			
MNTIFLXADS0	1	54.69%	15	28	50	56.0%			
TLHSFLXFDS0	1	54.69%	15	27	50	54.0%			
FTWBFLXBDS0	1	54.69%	15	28	50	56.0%			
PNLNFLXARS0	1	54.69%	16	29	50	58.0%			
STMKFLXARS0	1	54.69%	16	29	50	58.0%			
CFVLFLXADS0	1	54.69%	16	29	50	58.0%			
GNVLFLXARS0	1	54.69%	16	29	50	58.0%			
GNVLFLXARS0	1	54.69%	16	29	50	58.0%			
LEE FLXARS0	1	54.69%	16	29	50	58.0%			
MALNFLXARS0	1	54.69%	16	29	50	58.0%			

CIII	Density	Feeder Fill	Total Lines Served in Grid	Eng. Lines	Standard Cable Size	Effective Fill	Sum of Lines by Density	Sum of Standard Cable Pairs	Fill by Density Zone
TLHSFLXFDS0	1	54.69%	16	30	50	60.0%			
ALFRFLXARS0	1	54.69%	16	30	50	60.0%			
ALFRFLXARS0	1	54.69%	16	30	50	60.0%			
ALFRFLXARS0	1	54.69%	16	30	50	60.0%			
RYHLFLXARS0	1	54.69%	16	31	50	62.0%			
CHLKFLXARS0	1	54.69%	17	31	50	62.0%			
GNVLFLXARS0	1	54.69%	17	31	50	62.0%			
GNVLFLXARS0	1	54.69%	17	31	50	62.0%			
GNWDFLXARS0	1	54.69%	17	31	50	62.0%			
TLHSFLXFDS0	1	54.69%	17	31	50	62.0%			
TLHSFLXFDS0	1	54.69%	17	31	50	62.0%			
CHLKFLXARS0	1	54.69%	17	32	50	64.0%			
FRPTFLXARS0	1	54.69%	18	33	50	66.0%			
GNVLFLXARS0	1	54.69%	18	33	50	66.0%			
LEE FLXARS0	1	54.69%	18	33	50	66.0%			
BNFYFLXARS0	1	54.69%	18	34	50	68.0%			
CHLKFLXARS0	1	54.69%	18	34	50	68.0%			
CHLKFLXARS0	1	54.69%	18	34	50	68.0%			
GLDLFLXARS0	1	54.69%	19	35	50	70.0%			
SPCPFLXADS0	1	54.69%	19	34	50	68.0%			
BAKRFLXADS0	1	54.69%	19	36	50	72.0%			
DFSPFLXADS0	1	54.69%	19	36	50	72.0%			
GNWDFLXARS0	1	54.69%	19	35	50	70.0%			
MALNFLXARS0	1	54.69%	19	36	50	72.0%			
BAKRFLXADS0	1	54.69%	19	36	50	72.0%			
GNVLFLXARS0	1	54.69%	20	36	50	72.0%			
DFSPFLXADS0	1	54.69%	20	37	50	74.0%			
FRPTFLXARS0	1	54.69%	20	38	50	76.0%			
GNWDFLXARS0	1	54.69%	20	38	50	76.0%			
MALNFLXARS0	1	54.69%	20	38	50	76.0%			
MRNNFLXADS0	1	54.69%	21	38	50	76.0%			
MRNNFLXADS0	1	54.69%	20	38	50	76.0%			
PNLNFLXARS0	1	54.69%	21	38	50	76.0%			
TLHSFLXCDS0	1	54.69%	21	39	50	78.0%			
GNVLFLXARS0	1	54.69%	21	40	50	80.0%			
MALNFLXARS0	1	54.69%	22	41	50	82.0%			
MNTIFLXADS0	1	54.69%	22	40	50	80.0%			
GLDLFLXARS0	1	54.69%	22	41	50	82.0%			
GLDLFLXARS0	1	54.69%	22	41	50	82.0%			
MALNFLXARS0	1	54.69%	23	42	50	84.0%			
MRNNFLXADS0	1	54.69%	22	41	50	82.0%			
PANCFLXARS0	1	54.69%	22	41	50	82.0%			
BAKRFLXADS0	1	54.69%	23	43	50	86.0%			
CFVLFLXADS0	1	54.69%	23	42	50	84.0%			
MNTIFLXADS0	1	54.69%	23	42	50	84.0%			
MNTIFLXADS0	1	54.69%	23	42	50	84.0%			
MNTIFLXADS0	1	54.69%	23	43	50	86.0%			
LWTYFLXARS0	1	54.69%	23	43	50	86.0%			
BAKRFLXADS0	1	54.69%	24	44	50	88.0%			
BAKRFLXADS0	1	54.69%	24	44	50	88.0%			
BAKRFLXADS0	1	54.69%	24	44	50	88.0%			
MALNFLXARS0	1	54.69%	24	44	50	88.0%			
MNTIFLXADS0	1	54.69%	24	44	50	88.0%			
SPCPFLXADS0	1	54.69%	24	44	50	88.0%			
GNVLFLXARS0	1	54.69%	24	45	50	90.0%			

Clli	Density	Feeder Fill	Total Lines Served in Grid	Eng. Lines	Standard Cable Size	Effective Fill	Sum of Lines by Density	Sum of Standard Cable Pairs	Fill by Density Zone
GNVLFLXARS0	1	54.69%	24	45	50	90.0%			
BAKRFLXADS0	1	54.69%	25	46	50	92.0%			
GNWDFLXARS0	1	54.69%	25	46	50	92.0%			
MNTIFLXADS0	1	54.69%	25	47	50	94.0%			
MNTIFLXADS0	1	54.69%	25	47	50	94.0%			
MRNNFLXADS0	1	54.69%	25	47	50	94.0%			
SNDSFLXARS0	1	54.69%	25	47	50	94.0%			
GLDLFLXARS0	1	54.69%	26	48	50	96.0%			
PNLNFLXARS0	1	54.69%	26	48	50	96.0%			
FTWBFLXBDS0	1	54.69%	26	49	50	98.0%			
BNFYFLXARS0	1	54.69%	27	49	50	98.0%			
LWTYFLXARS0	1	54.69%	27	49	50	98.0%			
FRPTFLXARS0	1	54.69%	27	50	50	100.0%			
BNFYFLXARS0	1	54.69%	28	51	100	51.0%			
CHLKFLXARS0	1	54.69%	28	51	100	51.0%			
CHLKFLXARS0	1	54.69%	28	51	100	51.0%			
MNTIFLXADS0	1	54.69%	28	51	100	51.0%			
TLHSFLXFDS0	1	54.69%	29	53	100	53.0%			
GNVLFLXARS0	1	54.69%	29	54	100	54.0%			
LEE FLXARS0	1	54.69%	29	54	100	54.0%			
MNTIFLXADS0	1	54.69%	29	53	100	53.0%			
MNTIFLXADS0	1	54.69%	29	53	100	53.0%			
BAKRFLXADS0	1	54.69%	29	54	100	54.0%			
TLHSFLXFDS0	1	54.69%	30	55	100	55.0%			
PNLNFLXARS0	1	54.69%	30	55	100	55.0%			
CRVWFLXADS0	1	54.69%	31	56	100	56.0%			
BAKRFLXADS0	1	54.69%	31	57	100	57.0%			
PNLNFLXARS0	1	54.69%	31	57	100	57.0%			
CHLKFLXARS0	1	54.69%	31	58	100	58.0%			
SPCPFLXADS0	1	54.69%	31	58	100	58.0%			
VLPRFLXADS0	1	54.69%	32	58	100	58.0%			
BAKRFLXADS0	1	54.69%	32	60	100	60.0%			
LEE FLXARS0	1	54.69%	32	60	100	60.0%			
MNTIFLXADS0	1	54.69%	32	60	100	60.0%			
PNLNFLXARS0	1	54.69%	32	60	100	60.0%			
BNFYFLXARS0	1	54.69%	33	60	100	60.0%			
TLHSFLXGDS0	1	54.69%	33	61	100	61.0%			
GNVLFLXARS0	1	54.69%	34	63	100	63.0%			
GNWDFLXARS0	1	54.69%	34	63	100	63.0%			
MNTIFLXADS0	1	54.69%	34	63	100	63.0%	3,805	10,330	36.8%
FTWBFLXCRS0	2	54.95%	2	4	12	33.3%			
MALNFLXARS0	2	54.95%	6	11	12	91.7%			
SPCPFLXADS0	2	54.95%	6	11	12	91.7%			
MRNNFLXADS0	2	54.95%	6	12	12	100.0%			
MALNFLXARS0	2	54.95%	7	13	18	72.2%			
BNFYFLXARS0	2	54.95%	8	14	18	77.8%			
KGLKFLXARS0	2	54.95%	8	15	18	83.3%			
SPCPFLXADS0	2	54.95%	9	16	18	88.9%			
BNFYFLXARS0	2	54.95%	9	17	18	94.4%			
CRVWFLXADS0	2	54.95%	9	17	18	94.4%			
DFSPFLXADS0	2	54.95%	10	18	18	100.0%			
SPCPFLXADS0	2	54.95%	10	19	25	76.0%			
STMKFLXARS0	2	54.95%	10	19	25	76.0%			
CRVWFLXADS0	2	54.95%	11	20	25	80.0%			
GNVLFLXARS0	2	54.95%	11	20	25	80.0%			

CLLI	Density	Feeder Fill	Total Lines Served in Grid	Eng. Lines	Standard Cable Size	Effective Fill	Sum of Lines by Density	Sum of Standard Cable Pairs	Fill by Density Zone
GNWDFLXARS0	2	54.95%	10	20	25	80.0%			
MALNFLXARS0	2	54.95%	11	21	25	84.0%			
GNWDFLXARS0	2	54.95%	12	22	25	88.0%			
MNTIFLXADS0	2	54.95%	11	21	25	84.0%			
MNTIFLXADS0	2	54.95%	11	21	25	84.0%			
BAKRFLXADS0	2	54.95%	13	23	25	92.0%			
MALNFLXARS0	2	54.95%	12	23	25	92.0%			
MDSNFLXADS0	2	54.95%	13	24	25	96.0%			
DFSPFLXADS0	2	54.95%	13	25	25	100.0%			
FRPTFLXARS0	2	54.95%	14	25	25	100.0%			
STMKFLXARS0	2	54.95%	14	26	50	52.0%			
TLHSFLXCDS0	2	54.95%	14	26	50	52.0%			
DFSPFLXADS0	2	54.95%	16	29	50	58.0%			
CTDLFLXARS0	2	54.95%	16	30	50	60.0%			
GNVLFLXARS0	2	54.95%	18	32	50	64.0%			
MRNNFLXADS0	2	54.95%	17	32	50	64.0%			
GLDLFLXARS0	2	54.95%	18	33	50	66.0%			
GNWDFLXARS0	2	54.95%	18	33	50	66.0%			
GNVLFLXARS0	2	54.95%	19	34	50	68.0%			
SNDSFLXARS0	2	54.95%	19	35	50	70.0%			
PANCFLXARS0	2	54.95%	19	35	50	70.0%			
CTDLFLXARS0	2	54.95%	20	37	50	74.0%			
SPCPFLXADS0	2	54.95%	21	38	50	76.0%			
PNLNFLXARS0	2	54.95%	22	41	50	82.0%			
GDRGFLXADS0	2	54.95%	22	41	50	82.0%			
MRNNFLXADS0	2	54.95%	23	42	50	84.0%			
SGBHFLXARS0	2	54.95%	23	42	50	84.0%			
FRPTFLXARS0	2	54.95%	23	42	50	84.0%			
ALFRFLXARS0	2	54.95%	24	43	50	86.0%			
CTDLFLXARS0	2	54.95%	23	43	50	86.0%			
MALNFLXARS0	2	54.95%	24	44	50	88.0%			
TLHSFLXDDS0	2	54.95%	24	44	50	88.0%			
CTDLFLXARS0	2	54.95%	24	45	50	90.0%			
CFVLFLXADS0	2	54.95%	26	47	50	94.0%			
DFSPFLXADS0	2	54.95%	27	50	50	100.0%			
GNWDFLXARS0	2	54.95%	28	51	100	51.0%			
SNDSFLXARS0	2	54.95%	27	50	50	100.0%			
CHLKFLXARS0	2	54.95%	28	51	100	51.0%			
DFSPFLXADS0	2	54.95%	28	51	100	51.0%			
MNTIFLXADS0	2	54.95%	29	53	100	53.0%			
FRPTFLXARS0	2	54.95%	30	55	100	55.0%			
GNWDFLXARS0	2	54.95%	30	54	100	54.0%			
KGLKFLXARS0	2	54.95%	30	54	100	54.0%			
MALNFLXARS0	2	54.95%	30	54	100	54.0%			
STRKFLXADS0	2	54.95%	29	54	100	54.0%			
BAKRFLXADS0	2	54.95%	30	56	100	56.0%			
BNFYFLXARS0	2	54.95%	30	55	100	55.0%			
SPCPFLXADS0	2	54.95%	30	55	100	55.0%			
CRVWFLXADS0	2	54.95%	30	56	100	56.0%			
DFSPFLXADS0	2	54.95%	31	56	100	56.0%			
PNLNFLXARS0	2	54.95%	31	57	100	57.0%			
STRKFLXADS0	2	54.95%	31	57	100	57.0%			
BNFYFLXARS0	2	54.95%	32	58	100	58.0%			
CRVWFLXADS0	2	54.95%	32	58	100	58.0%			
DFSPFLXADS0	2	54.95%	32	59	100	59.0%			

Clli	Density	Feeder Fill	Total Lines Served in Grid	Eng. Lines	Standard Cable Size	Effective Fill	Sum of Lines by Density	Sum of Standard Cable Pairs	Fill by Density Zone
CFVLFLXADS0	2	54.95%	33	61	100	61.0%			
CHLKFLXARS0	2	54.95%	33	61	100	61.0%			
GLDLFLXARS0	2	54.95%	33	61	100	61.0%			
GNWDFLXARS0	2	54.95%	33	61	100	61.0%			
KGLKFLXARS0	2	54.95%	33	61	100	61.0%			
SPCPFLXADS0	2	54.95%	33	60	100	60.0%			
ALFRFLXARS0	2	54.95%	33	61	100	61.0%			
BAKRFLXADS0	2	54.95%	34	63	100	63.0%			
CFVLFLXADS0	2	54.95%	34	63	100	63.0%			
MNTIFLXADS0	2	54.95%	34	63	100	63.0%			
CTDLFLXARS0	2	54.95%	35	64	100	64.0%			
LWTYFLXARS0	2	54.95%	35	64	100	64.0%			
BNFYFLXARS0	2	54.95%	35	64	100	64.0%			
DFSPFLXADS0	2	54.95%	36	65	100	65.0%			
DFSPFLXADS0	2	54.95%	36	65	100	65.0%			
TLHSFLXCDS0	2	54.95%	35	65	100	65.0%			
TLHSFLXDDS0	2	54.95%	35	65	100	65.0%			
BNFYFLXARS0	2	54.95%	36	66	100	66.0%			
DFSPFLXADS0	2	54.95%	36	67	100	67.0%			
RYHLFLXARS0	2	54.95%	36	66	100	66.0%			
RYHLFLXARS0	2	54.95%	36	66	100	66.0%			
DFSPFLXADS0	2	54.95%	37	69	100	69.0%			
MALNFLXARS0	2	54.95%	37	69	100	69.0%			
TLHSFLXFDS0	2	54.95%	37	68	100	68.0%			
GLDLFLXARS0	2	54.95%	38	69	100	69.0%			
GNVLFLXARS0	2	54.95%	38	70	100	70.0%			
LEE FLXARS0	2	54.95%	38	70	100	70.0%			
BNFYFLXARS0	2	54.95%	38	70	100	70.0%			
CHLKFLXARS0	2	54.95%	39	71	100	71.0%			
CHLKFLXARS0	2	54.95%	39	71	100	71.0%			
BNFYFLXARS0	2	54.95%	39	72	100	72.0%			
GLDLFLXARS0	2	54.95%	39	71	100	71.0%			
LWTYFLXARS0	2	54.95%	39	72	100	72.0%			
PNLNFLXARS0	2	54.95%	39	71	100	71.0%			
PNLNFLXARS0	2	54.95%	39	71	100	71.0%			
ALFRFLXARS0	2	54.95%	40	73	100	73.0%			
BNFYFLXARS0	2	54.95%	39	72	100	72.0%			
MALNFLXARS0	2	54.95%	40	73	100	73.0%			
TLHSFLXFDS0	2	54.95%	40	73	100	73.0%			
CHLKFLXARS0	2	54.95%	40	74	100	74.0%			
FRPTFLXARS0	2	54.95%	41	75	100	75.0%			
FRPTFLXARS0	2	54.95%	41	74	100	74.0%			
FRPTFLXARS0	2	54.95%	41	74	100	74.0%			
LEE FLXARS0	2	54.95%	40	74	100	74.0%			
TLHSFLXDDS0	2	54.95%	40	74	100	74.0%			
ALFRFLXARS0	2	54.95%	41	75	100	75.0%			
GNVLFLXARS0	2	54.95%	41	75	100	75.0%			
GNWDFLXARS0	2	54.95%	41	75	100	75.0%			
MNTIFLXADS0	2	54.95%	41	75	100	75.0%			
LEE FLXARS0	2	54.95%	41	76	100	76.0%			
MNTIFLXADS0	2	54.95%	42	76	100	76.0%			
TLHSFLXDDS0	2	54.95%	42	76	100	76.0%			
BAKRFLXADS0	2	54.95%	42	77	100	77.0%			
BAKRFLXADS0	2	54.95%	42	77	100	77.0%			
BNFYFLXARS0	2	54.95%	42	77	100	77.0%			

CIll	Density	Feeder Fill	Total Lines Served in Grid	Eng. Lines	Standard Cable Size	Effective Fill	Sum of Lines by Density	Sum of Standard Cable Pairs	Fill by Density Zone
BAKRFLXADS0	2	54.95%	42	77	100	77.0%			
STRKFLXADS0	2	54.95%	42	78	100	78.0%			
MALNFLXARS0	2	54.95%	43	79	100	79.0%			
PNLNFLXARS0	2	54.95%	43	78	100	78.0%			
BNFYFLXARS0	2	54.95%	43	80	100	80.0%			
GDRGFLXADS0	2	54.95%	43	79	100	79.0%			
MNTIFLXADS0	2	54.95%	43	80	100	80.0%			
MNTIFLXADS0	2	54.95%	43	80	100	80.0%			
PANCFLXARS0	2	54.95%	44	80	100	80.0%			
BAKRFLXADS0	2	54.95%	44	80	100	80.0%			
PNLNFLXARS0	2	54.95%	44	81	100	81.0%			
SNDSFLXARS0	2	54.95%	44	81	100	81.0%			
STMKFLXARS0	2	54.95%	45	82	100	82.0%			
BAKRFLXADS0	2	54.95%	45	83	100	83.0%			
PNLNFLXARS0	2	54.95%	45	83	100	83.0%			
CFVLFLXADS0	2	54.95%	46	84	100	84.0%			
SNDSFLXARS0	2	54.95%	46	84	100	84.0%			
BAKRFLXADS0	2	54.95%	46	85	100	85.0%			
FRPTFLXARS0	2	54.95%	46	84	100	84.0%			
GNWDFLXARS0	2	54.95%	46	85	100	85.0%			
STRKFLXADS0	2	54.95%	46	84	100	84.0%			
BAKRFLXADS0	2	54.95%	47	85	100	85.0%			
BNFYFLXARS0	2	54.95%	47	86	100	86.0%			
DFSPFLXADS0	2	54.95%	47	85	100	85.0%			
MNTIFLXADS0	2	54.95%	47	86	100	86.0%			
VLPRFLXADS0	2	54.95%	47	86	100	86.0%			
LEE FLXARS0	2	54.95%	47	86	100	86.0%			
MRNNFLXADS0	2	54.95%	47	86	100	86.0%			
TLHSFLXCDS0	2	54.95%	47	87	100	87.0%			
GNWDFLXARS0	2	54.95%	48	87	100	87.0%			
KGLKFLXARS0	2	54.95%	48	88	100	88.0%			
RYHLFLXARS0	2	54.95%	48	87	100	87.0%			
TLHSFLXFDS0	2	54.95%	48	87	100	87.0%			
ALFRFLXARS0	2	54.95%	48	88	100	88.0%			
DFSPFLXADS0	2	54.95%	48	88	100	88.0%			
GLDLFLXARS0	2	54.95%	48	89	100	89.0%			
PNLNFLXARS0	2	54.95%	48	88	100	88.0%			
PNLNFLXARS0	2	54.95%	48	88	100	88.0%			
BNFYFLXARS0	2	54.95%	48	89	100	89.0%			
FRPTFLXARS0	2	54.95%	49	89	100	89.0%			
MALNFLXARS0	2	54.95%	49	89	100	89.0%			
ALFRFLXARS0	2	54.95%	50	91	100	91.0%			
ALFRFLXARS0	2	54.95%	50	91	100	91.0%			
CHLKFLXARS0	2	54.95%	50	91	100	91.0%			
PANCFLXARS0	2	54.95%	50	91	100	91.0%			
TLHSFLXFDS0	2	54.95%	50	91	100	91.0%			
DFSPFLXADS0	2	54.95%	50	91	100	91.0%			
DFSPFLXADS0	2	54.95%	50	91	100	91.0%			
LEE FLXARS0	2	54.95%	51	92	100	92.0%			
TLHSFLXDDS0	2	54.95%	50	92	100	92.0%			
GNWDFLXARS0	2	54.95%	51	93	100	93.0%			
CHLKFLXARS0	2	54.95%	51	94	100	94.0%			
ALFRFLXARS0	2	54.95%	52	95	100	95.0%			
GDRGFLXADS0	2	54.95%	52	95	100	95.0%			
LWTYFLXARS0	2	54.95%	52	95	100	95.0%			

CIli	Density	Feeder Fill	Total Lines Served in Grid	Eng. Lines	Standard Cable Size	Effective Fill	Sum of Lines by Density	Sum of Standard Cable Pairs	Fill by Density Zone
SGBHFLXARS0	2	54.95%	52	96	100	96.0%			
TLHSFLXFDS0	2	54.95%	52	96	100	96.0%			
SPCPFLXADS0	2	54.95%	53	97	100	97.0%			
MRNNFLXADS0	2	54.95%	53	97	100	97.0%			
GDRGFLXADS0	2	54.95%	54	98	100	98.0%			
CHLKFLXARS0	2	54.95%	54	99	100	99.0%			
CHLKFLXARS0	2	54.95%	54	99	100	99.0%			
FRPTFLXARS0	2	54.95%	55	101	200	50.5%			
GNVLFLXARS0	2	54.95%	55	100	100	100.0%			
MDSNFLXADS0	2	54.95%	55	100	100	100.0%			
MNTIFLXADS0	2	54.95%	55	100	100	100.0%			
MNTIFLXADS0	2	54.95%	55	100	100	100.0%			
SGBHFLXARS0	2	54.95%	55	100	100	100.0%			
MNTIFLXADS0	2	54.95%	55	101	200	50.5%			
SNDSFLXARS0	2	54.95%	55	101	200	50.5%			
STRKFLXADS0	2	54.95%	55	101	200	50.5%			
PNLNFLXARS0	2	54.95%	56	102	200	51.0%			
BAKRFLXADS0	2	54.95%	57	103	200	51.5%			
BNFYFLXARS0	2	54.95%	57	104	200	52.0%			
DFSPFLXADS0	2	54.95%	57	104	200	52.0%			
FRPTFLXARS0	2	54.95%	57	104	200	52.0%			
MNTIFLXADS0	2	54.95%	57	105	200	52.5%			
TLHSFLXFDS0	2	54.95%	57	104	200	52.0%			
BNFYFLXARS0	2	54.95%	58	105	200	52.5%			
GDRGFLXADS0	2	54.95%	57	105	200	52.5%			
VLPRFLXADS0	2	54.95%	58	105	200	52.5%			
MNTIFLXADS0	2	54.95%	58	107	200	53.5%			
MRNNFLXADS0	2	54.95%	59	107	200	53.5%			
SPCPFLXADS0	2	54.95%	59	108	200	54.0%			
TLHSFLXCDS0	2	54.95%	59	107	200	53.5%			
DFSPFLXADS0	2	54.95%	59	108	200	54.0%			
CTDLFLXARS0	2	54.95%	60	109	200	54.5%			
PNLNFLXARS0	2	54.95%	60	109	200	54.5%			
MALNFLXARS0	2	54.95%	60	110	200	55.0%			
MDSNFLXADS0	2	54.95%	60	110	200	55.0%			
GNWDFLXARS0	2	54.95%	61	111	200	55.5%			
LEE FLXARS0	2	54.95%	60	111	200	55.5%			
DFSPFLXADS0	2	54.95%	61	111	200	55.5%			
PNLNFLXARS0	2	54.95%	61	111	200	55.5%			
LWTYFLXARS0	2	54.95%	62	114	200	57.0%			
MNTIFLXADS0	2	54.95%	62	113	200	56.5%			
CHLKFLXARS0	2	54.95%	62	114	200	57.0%			
STRKFLXADS0	2	54.95%	63	114	200	57.0%			
BNFYFLXARS0	2	54.95%	63	115	200	57.5%			
GDRGFLXADS0	2	54.95%	63	114	200	57.0%			
PANCFLXARS0	2	54.95%	63	115	200	57.5%			
CRVWFLXADS0	2	54.95%	64	117	200	58.5%			
BNFYFLXARS0	2	54.95%	64	118	200	59.0%			
RYHLFLXARS0	2	54.95%	64	117	200	58.5%			
TLHSFLXGDS0	2	54.95%	64	118	200	59.0%			
ALFRFLXARS0	2	54.95%	65	118	200	59.0%			
LEE FLXARS0	2	54.95%	65	119	200	59.5%			
LEE FLXARS0	2	54.95%	65	119	200	59.5%			
DFSPFLXADS0	2	54.95%	65	119	200	59.5%			
DFSPFLXADS0	2	54.95%	65	119	200	59.5%			

CIII	Density	Feeder Fill	Total Lines Served in Grid	Eng. Lines	Standard Cable Size	Effective Fill	Sum of Lines by Density	Sum of Standard Cable Pairs	Fill by Density Zone
LWTYFLXARS0	2	54.95%	65	120	200	60.0%			
MNTIFLXADS0	2	54.95%	65	119	200	59.5%			
STRKFLXADS0	2	54.95%	66	120	200	60.0%			
MRNNFLXADS0	2	54.95%	67	122	200	61.0%			
MRNNFLXADS0	2	54.95%	67	122	200	61.0%			
CHLKFLXARS0	2	54.95%	67	123	200	61.5%			
GLDLFLXARS0	2	54.95%	68	125	200	62.5%			
MRNNFLXADS0	2	54.95%	68	124	200	62.0%			
BAKRFLXADS0	2	54.95%	69	125	200	62.5%			
LEE FLXARS0	2	54.95%	68	125	200	62.5%			
MNTIFLXADS0	2	54.95%	69	126	200	63.0%			
RYHLFLXARS0	2	54.95%	69	126	200	63.0%			
STRKFLXADS0	2	54.95%	69	126	200	63.0%			
DFSPFLXADS0	2	54.95%	70	128	200	64.0%			
GNWDFLXARS0	2	54.95%	70	128	200	64.0%			
STRKFLXADS0	2	54.95%	70	128	200	64.0%			
CRVWFLXADS0	2	54.95%	70	128	200	64.0%			
FRPTFLXARS0	2	54.95%	71	129	200	64.5%			
BNFYFLXARS0	2	54.95%	71	130	200	65.0%			
CRVWFLXADS0	2	54.95%	72	131	200	65.5%			
PNLNFLXARS0	2	54.95%	71	130	200	65.0%			
BNFYFLXARS0	2	54.95%	72	131	200	65.5%			
BNFYFLXARS0	2	54.95%	72	131	200	65.5%			
LWTYFLXARS0	2	54.95%	72	131	200	65.5%			
RYHLFLXARS0	2	54.95%	72	132	200	66.0%			
BNFYFLXARS0	2	54.95%	73	133	200	66.5%			
MDSNFLXADS0	2	54.95%	73	133	200	66.5%			
FRPTFLXARS0	2	54.95%	73	134	200	67.0%			
DFSPFLXADS0	2	54.95%	74	135	200	67.5%			
GNWDFLXARS0	2	54.95%	75	137	200	68.5%			
DFSPFLXADS0	2	54.95%	75	137	200	68.5%			
MDSNFLXADS0	2	54.95%	75	137	200	68.5%			
GDRGFLXADS0	2	54.95%	75	138	200	69.0%			
RYHLFLXARS0	2	54.95%	76	138	200	69.0%			
TLHSFLXHDS0	2	54.95%	76	138	200	69.0%			
CFVLFLXADS0	2	54.95%	76	139	200	69.5%			
TLHSFLXFDS0	2	54.95%	77	140	200	70.0%			
TLHSFLXGDS0	2	54.95%	77	140	200	70.0%			
RYHLFLXARS0	2	54.95%	77	141	200	70.5%			
BNFYFLXARS0	2	54.95%	78	142	200	71.0%			
DFSPFLXADS0	2	54.95%	78	142	200	71.0%			
MRNNFLXADS0	2	54.95%	78	142	200	71.0%			
SNDSFLXARS0	2	54.95%	79	144	200	72.0%			
GLDLFLXARS0	2	54.95%	79	144	200	72.0%			
MNTIFLXADS0	2	54.95%	79	144	200	72.0%			
STRKFLXADS0	2	54.95%	79	144	200	72.0%			
ALFRFLXARS0	2	54.95%	79	145	200	72.5%			
LEE FLXARS0	2	54.95%	80	145	200	72.5%			
SPCPFLXADS0	2	54.95%	79	145	200	72.5%			
GLDLFLXARS0	2	54.95%	80	146	200	73.0%			
DFSPFLXADS0	2	54.95%	80	147	200	73.5%			
PNLNFLXARS0	2	54.95%	80	147	200	73.5%			
RYHLFLXARS0	2	54.95%	81	147	200	73.5%			
BNFYFLXARS0	2	54.95%	81	148	200	74.0%			
CTDLFLXARS0	2	54.95%	81	148	200	74.0%			

CIll	Density	Feeder Fill	Total Lines Served in Grid	Eng. Lines	Standard Cable Size	Effective Fill	Sum of Lines by Density	Sum of Standard Cable Pairs	Fill by Density Zone
DFSPFLXADS0	2	54.95%	81	148	200	74.0%			
GDRGFLXADS0	2	54.95%	82	150	200	75.0%			
MNTIFLXADS0	2	54.95%	82	150	200	75.0%			
BNFYFLXARS0	2	54.95%	83	151	200	75.5%			
MNTIFLXADS0	2	54.95%	83	152	200	76.0%			
MNTIFLXADS0	2	54.95%	84	154	200	77.0%			
MNTIFLXADS0	2	54.95%	84	154	200	77.0%			
TLHSFLXCDS0	2	54.95%	85	155	200	77.5%			
PANCFLXARS0	2	54.95%	86	156	200	78.0%			
SPCPFLXADS0	2	54.95%	86	157	200	78.5%			
MALNFLXARS0	2	54.95%	86	158	200	79.0%			
BAKRFLXADS0	2	54.95%	87	159	200	79.5%			
RYHLFLXARS0	2	54.95%	87	159	200	79.5%			
TLHSFLXCDS0	2	54.95%	87	160	200	80.0%			
CHLKFLXARS0	2	54.95%	88	161	200	80.5%			
FRPTFLXARS0	2	54.95%	88	161	200	80.5%			
MNTIFLXADS0	2	54.95%	88	161	200	80.5%			
MRNNFLXADS0	2	54.95%	88	161	200	80.5%			
MRNNFLXADS0	2	54.95%	89	162	200	81.0%			
DFSPFLXADS0	2	54.95%	90	163	200	81.5%			
DFSPFLXADS0	2	54.95%	89	163	200	81.5%			
FRPTFLXARS0	2	54.95%	90	165	200	82.5%			
RYHLFLXARS0	2	54.95%	91	165	200	82.5%			
PNLNFLXARS0	2	54.95%	91	166	200	83.0%			
CFVLFLXADS0	2	54.95%	91	167	200	83.5%			
SNDSFLXARS0	2	54.95%	92	168	200	84.0%			
BAKRFLXADS0	2	54.95%	93	170	200	85.0%			
CFVLFLXADS0	2	54.95%	93	170	200	85.0%			
MDSNFLXADS0	2	54.95%	94	172	200	86.0%			
MRNNFLXADS0	2	54.95%	95	173	200	86.5%			
BNFYFLXARS0	2	54.95%	95	174	200	87.0%			
RYHLFLXARS0	2	54.95%	95	174	200	87.0%			
DFSPFLXADS0	2	54.95%	96	175	200	87.5%			
GDRGFLXADS0	2	54.95%	96	175	200	87.5%			
STMKFLXARS0	2	54.95%	97	176	200	88.0%			
GDRGFLXADS0	2	54.95%	97	177	200	88.5%			
CFVLFLXADS0	2	54.95%	98	178	200	89.0%			
STRKFLXADS0	2	54.95%	98	178	200	89.0%			
TLHSFLXFDS0	2	54.95%	97	178	200	89.0%			
ALFRFLXARS0	2	54.95%	98	179	200	89.5%			
MRNNFLXADS0	2	54.95%	98	179	200	89.5%			
LEE FLXARS0	2	54.95%	99	180	200	90.0%			
TLHSFLXFDS0	2	54.95%	98	180	200	90.0%			
BAKRFLXADS0	2	54.95%	99	180	200	90.0%			
CFVLFLXADS0	2	54.95%	99	181	200	90.5%			
RYHLFLXARS0	2	54.95%	99	180	200	90.0%			
MALNFLXARS0	2	54.95%	99	181	200	90.5%			
MNTIFLXADS0	2	54.95%	99	181	200	90.5%			
TLHSFLXFDS0	2	54.95%	100	182	200	91.0%			
CFVLFLXADS0	2	54.95%	100	183	200	91.5%			
GLDLFLXARS0	2	54.95%	100	183	200	91.5%			
MNTIFLXADS0	2	54.95%	101	185	200	92.5%			
CHLKFLXARS0	2	54.95%	102	186	200	93.0%			
MNTIFLXADS0	2	54.95%	102	186	200	93.0%			
MNTIFLXADS0	2	54.95%	102	186	200	93.0%			

CIII	Density	Feeder Fill	Total Lines Served in Grid	Eng. Lines	Standard Cable Size	Effective Fill	Sum of Lines by Density	Sum of Standard Cable Pairs	Fill by Density Zone
MNTIFLXADS0	2	54.95%	103	187	200	93.5%			
MNTIFLXADS0	2	54.95%	103	189	200	94.5%			
DFSPFLXADS0	2	54.95%	104	189	200	94.5%			
TLHSFLXFDS0	2	54.95%	104	189	200	94.5%			
FRPTFLXARS0	2	54.95%	104	190	200	95.0%			
CTDLFLXARS0	2	54.95%	105	191	200	95.5%			
GLDLFLXARS0	2	54.95%	105	191	200	95.5%			
TLHSFLXFDS0	2	54.95%	105	191	200	95.5%			
PANCFLXARS0	2	54.95%	106	193	200	96.5%			
GLDLFLXARS0	2	54.95%	107	195	200	97.5%			
ALFRFLXARS0	2	54.95%	108	197	200	98.5%			
BNFYFLXARS0	2	54.95%	109	198	200	99.0%			
MRNNFLXADS0	2	54.95%	109	199	200	99.5%			
TLHSFLXCDS0	2	54.95%	109	199	200	99.5%			
BNFYFLXARS0	2	54.95%	110	200	200	100.0%			
CRVWFLXADS0	2	54.95%	111	202	300	67.3%			
LWTYFLXARS0	2	54.95%	111	202	300	67.3%			
CHLKFLXARS0	2	54.95%	111	203	300	67.7%			
LWTYFLXARS0	2	54.95%	111	203	300	67.7%			
TLHSFLXGDS0	2	54.95%	112	204	300	68.0%			
DFSPFLXADS0	2	54.95%	113	206	300	68.7%			
KGLKFLXARS0	2	54.95%	113	206	300	68.7%			
DFSPFLXADS0	2	54.95%	114	208	300	69.3%			
CRVWFLXADS0	2	54.95%	114	208	300	69.3%			
STRKFLXADS0	2	54.95%	114	208	300	69.3%			
BNFYFLXARS0	2	54.95%	115	209	300	69.7%			
GDRGFLXADS0	2	54.95%	116	211	300	70.3%			
MNTIFLXADS0	2	54.95%	115	210	300	70.0%			
MNTIFLXADS0	2	54.95%	115	210	300	70.0%			
TLHSFLXCDS0	2	54.95%	116	211	300	70.3%			
TLHSFLXFDS0	2	54.95%	116	212	300	70.7%			
ALFRFLXARS0	2	54.95%	117	213	300	71.0%			
BAKRFLXADS0	2	54.95%	117	213	300	71.0%			
ALFRFLXARS0	2	54.95%	118	215	300	71.7%			
DFSPFLXADS0	2	54.95%	119	216	300	72.0%			
BAKRFLXADS0	2	54.95%	119	217	300	72.3%			
MRNNFLXADS0	2	54.95%	119	218	300	72.7%			
STRKFLXADS0	2	54.95%	120	218	300	72.7%			
MNTIFLXADS0	2	54.95%	121	220	300	73.3%			
CTDLFLXARS0	2	54.95%	122	222	300	74.0%			
CTDLFLXARS0	2	54.95%	122	222	300	74.0%			
SGBHFLXARS0	2	54.95%	122	222	300	74.0%			
TLHSFLXFDS0	2	54.95%	123	224	300	74.7%			
MRNNFLXADS0	2	54.95%	123	225	300	75.0%			
RYHLFLXARS0	2	54.95%	123	225	300	75.0%			
DFSPFLXADS0	2	54.95%	125	227	300	75.7%			
TLHSFLXGDS0	2	54.95%	124	227	300	75.7%			
RYHLFLXARS0	2	54.95%	125	228	300	76.0%			
GNWDFLXARS0	2	54.95%	127	231	300	77.0%			
MRNNFLXADS0	2	54.95%	127	231	300	77.0%			
TLHSFLXCDS0	2	54.95%	128	233	300	77.7%			
TLHSFLXCDS0	2	54.95%	128	233	300	77.7%			
STRKFLXADS0	2	54.95%	131	239	300	79.7%			
SNDSFLXARS0	2	54.95%	131	239	300	79.7%			
MALNFLXARS0	2	54.95%	133	242	300	80.7%			

Clli	Density	Feeder Fill	Total Lines Served in Grid	Eng. Lines	Standard Cable Size	Effective Fill	Sum of Lines by Density	Sum of Standard Cable Pairs	Fill by Density Zone
CRVWFLXADS0	2	54.95%	133	242	300	80.7%			
MRNNFLXADS0	2	54.95%	133	243	300	81.0%			
MALNFLXARS0	2	54.95%	133	243	300	81.0%			
SNRSFLXARS0	2	54.95%	135	245	300	81.7%			
CRVWFLXADS0	2	54.95%	137	250	300	83.3%			
DFSPFLXADS0	2	54.95%	138	252	300	84.0%			
GDRGFLXADS0	2	54.95%	139	253	300	84.3%			
MDSNFLXADS0	2	54.95%	139	254	300	84.7%			
RYHLFLXARS0	2	54.95%	142	258	300	86.0%			
TLHSFLXDDS0	2	54.95%	142	258	300	86.0%			
KGLKFLXARS0	2	54.95%	143	261	300	87.0%			
GDRGFLXADS0	2	54.95%	144	263	300	87.7%			
SGBHFLXARS0	2	54.95%	144	263	300	87.7%			
TLHSFLXDDS0	2	54.95%	145	265	300	88.3%			
MNTIFLXADS0	2	54.95%	147	267	300	89.0%			
MDSNFLXADS0	2	54.95%	147	268	300	89.3%			
BNFYFLXARS0	2	54.95%	148	270	300	90.0%			
TLHSFLXDDS0	2	54.95%	148	269	300	89.7%			
STMKFLXARS0	2	54.95%	148	271	300	90.3%			
MRNNFLXADS0	2	54.95%	149	272	300	90.7%			
DFSPFLXADS0	2	54.95%	150	273	300	91.0%			
WSTVFLXARS0	2	54.95%	150	274	300	91.3%			
CFVLFLXADS0	2	54.95%	154	280	300	93.3%			
STRKFLXADS0	2	54.95%	156	284	300	94.7%			
GDRGFLXADS0	2	54.95%	156	285	300	95.0%			
PANCFLXARS0	2	54.95%	156	285	300	95.0%			
STMKFLXARS0	2	54.95%	157	286	300	95.3%			
FRPTFLXARS0	2	54.95%	159	291	300	97.0%			
ALFRFLXARS0	2	54.95%	160	292	300	97.3%			
RYHLFLXARS0	2	54.95%	160	292	300	97.3%			
DFSPFLXADS0	2	54.95%	161	293	300	97.7%			
STRKFLXADS0	2	54.95%	161	294	300	98.0%			
BAKRFLXADS0	2	54.95%	164	299	300	99.7%			
CFVLFLXADS0	2	54.95%	165	301	400	75.3%			
TLHSFLXFDS0	2	54.95%	166	302	400	75.5%			
CFVLFLXADS0	2	54.95%	168	306	400	76.5%			
BNFYFLXARS0	2	54.95%	169	308	400	77.0%			
CFVLFLXADS0	2	54.95%	170	309	400	77.3%			
CRVWFLXADS0	2	54.95%	172	314	400	78.5%			
SNRSFLXARS0	2	54.95%	177	323	400	80.8%			
SPCPFLXADS0	2	54.95%	182	332	400	83.0%			
VLPRFLXADS0	2	54.95%	183	333	400	83.3%			
MNTIFLXADS0	2	54.95%	185	338	400	84.5%			
TLHSFLXDDS0	2	54.95%	185	338	400	84.5%			
BAKRFLXADS0	2	54.95%	187	342	400	85.5%			
TLHSFLXFDS0	2	54.95%	188	343	400	85.8%			
CRVWFLXADS0	2	54.95%	191	348	400	87.0%			
TLHSFLXDDS0	2	54.95%	191	348	400	87.0%			
MNTIFLXADS0	2	54.95%	191	349	400	87.3%			
MNTIFLXADS0	2	54.95%	192	350	400	87.5%			
STRKFLXADS0	2	54.95%	196	357	400	89.3%			
LWTYFLXARS0	2	54.95%	198	361	400	90.3%			
DFSPFLXADS0	2	54.95%	200	364	400	91.0%			
SNDSFLXARS0	2	54.95%	200	365	400	91.3%			
PANCFLXARS0	2	54.95%	201	365	400	91.3%			

CIII	Density	Feeder Fill	Total Lines Served in Grid	Eng. Lines	Standard Cable Size	Effective Fill	Sum of Lines by Density	Sum of Standard Cable Pairs	Fill by Density Zone
FRPTFLXARS0	2	54.95%	207	376	400	94.0%			
TLHSFLXFDS0	2	54.95%	208	379	400	94.8%			
TLHSFLXCDS0	2	54.95%	209	380	400	95.0%			
TLHSFLXHDS0	2	54.95%	209	381	400	95.3%			
GDRGFLXADS0	2	54.95%	210	383	400	95.8%			
CRVWFLXADS0	2	54.95%	211	384	400	96.0%			
MRNNFLXADS0	2	54.95%	216	394	400	98.5%			
BAKRFLXADS0	2	54.95%	218	396	400	99.0%			
CFVLFLXADS0	2	54.95%	218	397	400	99.3%			
LEE FLXARS0	2	54.95%	221	402	600	67.0%			
CHLKFLXARS0	2	54.95%	227	413	600	68.8%			
CFVLFLXADS0	2	54.95%	235	428	600	71.3%			
CTDLFLXARS0	2	54.95%	238	433	600	72.2%			
CFVLFLXADS0	2	54.95%	239	436	600	72.7%			
TLHSFLXGDS0	2	54.95%	240	437	600	72.8%			
GNVLFLXARS0	2	54.95%	240	438	600	73.0%			
BNFYFLXARS0	2	54.95%	242	440	600	73.3%			
SGBHFLXARS0	2	54.95%	243	444	600	74.0%			
PNLNFLXARS0	2	54.95%	245	447	600	74.5%			
TLHSFLXFDS0	2	54.95%	245	447	600	74.5%			
STRKFLXADS0	2	54.95%	247	449	600	74.8%			
TLHSFLXCDS0	2	54.95%	247	449	600	74.8%			
TLHSFLXFDS0	2	54.95%	247	450	600	75.0%			
CRVWFLXADS0	2	54.95%	250	455	600	75.8%			
TLHSFLXCDS0	2	54.95%	250	456	600	76.0%			
GDRGFLXADS0	2	54.95%	254	462	600	77.0%			
TLHSFLXCDS0	2	54.95%	255	465	600	77.5%			
CFVLFLXADS0	2	54.95%	257	467	600	77.8%			
BAKRFLXADS0	2	54.95%	257	469	600	78.2%			
BNFYFLXARS0	2	54.95%	258	470	600	78.3%			
BNFYFLXARS0	2	54.95%	262	477	600	79.5%			
TLHSFLXDDS0	2	54.95%	264	481	600	80.2%			
CFVLFLXADS0	2	54.95%	265	483	600	80.5%			
PANCFLXARS0	2	54.95%	267	486	600	81.0%			
STRKFLXADS0	2	54.95%	267	487	600	81.2%			
TLHSFLXDDS0	2	54.95%	277	505	600	84.2%			
TLHSFLXDDS0	2	54.95%	280	510	600	85.0%			
SNRSFLXARS0	2	54.95%	281	512	600	85.3%			
SNDSFLXARS0	2	54.95%	282	514	600	85.7%			
TLHSFLXDDS0	2	54.95%	284	516	600	86.0%			
SGBHFLXARS0	2	54.95%	289	526	600	87.7%			
CFVLFLXADS0	2	54.95%	291	530	600	88.3%			
SNRSFLXARS0	2	54.95%	292	533	600	88.8%			
STRKFLXADS0	2	54.95%	294	536	600	89.3%			
CFVLFLXADS0	2	54.95%	297	540	600	90.0%			
TLHSFLXFDS0	2	54.95%	297	541	600	90.2%			
DFSPFLXADS0	2	54.95%	300	547	600	91.2%			
TLHSFLXCDS0	2	54.95%	308	562	600	93.7%			
MRNNFLXADS0	2	54.95%	320	583	600	97.2%			
BAKRFLXADS0	2	54.95%	321	585	600	97.5%			
MRNNFLXADS0	2	54.95%	327	595	600	99.2%			
TLHSFLXHDS0	2	54.95%	330	602	900	66.9%			
CRVWFLXADS0	2	54.95%	333	607	900	67.4%			
LWTYFLXARS0	2	54.95%	335	611	900	67.9%			
TLHSFLXFDS0	2	54.95%	338	615	900	68.3%			

CIli	Density	Feeder Fill	Total Lines Served In Grid	Eng. Lines	Standard Cable Size	Effective Fill	Sum of Lines by Density	Sum of Standard Cable Pairs	Fill by Density Zone
TLHSFLXGDS0	2	54.95%	337	615	900	68.3%			
TLHSFLXGDS0	2	54.95%	344	626	900	69.6%			
CRVWFLXADS0	2	54.95%	344	627	900	69.7%			
TLHSFLXGDS0	2	54.95%	360	656	900	72.9%			
ALFRFLXARS0	2	54.95%	367	668	900	74.2%			
SNRSFLXARS0	2	54.95%	375	683	900	75.9%			
SPCPFLXADS0	2	54.95%	375	683	900	75.9%			
CFVLFLXADS0	2	54.95%	376	684	900	76.0%			
MALNFLXARS0	2	54.95%	381	694	900	77.1%			
TLHSFLXGDS0	2	54.95%	387	704	900	78.2%			
MDSNFLXADS0	2	54.95%	392	714	900	79.3%			
TLHSFLXFDS0	2	54.95%	397	723	900	80.3%			
STRKFLXADS0	2	54.95%	401	731	900	81.2%			
FRPTFLXARS0	2	54.95%	407	740	900	82.2%			
SGBHFLXARS0	2	54.95%	437	795	900	88.3%			
GNVLFLXARS0	2	54.95%	439	800	900	88.9%			
TLHSFLXFDS0	2	54.95%	444	808	900	89.8%			
MNTIFLXADS0	2	54.95%	448	816	900	90.7%			
CFVLFLXADS0	2	54.95%	449	817	900	90.8%			
CFVLFLXADS0	2	54.95%	452	823	900	91.4%			
SGBHFLXARS0	2	54.95%	458	834	900	92.7%			
CTDLFLXARS0	2	54.95%	470	855	900	95.0%			
BNFYFLXARS0	2	54.95%	509	928	1,200	77.3%			
GDRGFLXADS0	2	54.95%	510	928	1,200	77.3%			
TLHSFLXDDS0	2	54.95%	514	935	1,200	77.9%			
MRNNFLXADS0	2	54.95%	531	968	1,200	80.7%			
MRNNFLXADS0	2	54.95%	572	1,042	1,200	86.8%			
STRKFLXADS0	2	54.95%	603	1,098	1,200	91.5%			
TLHSFLXGDS0	2	54.95%	608	1,108	1,200	92.3%			
MRNNFLXADS0	2	54.95%	611	1,112	1,200	92.7%			
CRVWFLXADS0	2	54.95%	615	1,120	1,200	93.3%			
TLHSFLXDDS0	2	54.95%	616	1,121	1,200	93.4%	62,682	144,424	43.4%
TLHSFLXCDS0	3	55.22%	84	152	200	76.0%			
VLPRFLXADS0	3	55.22%	144	261	300	87.0%			
STMKFLXARS0	3	55.22%	154	279	300	93.0%			
FRPTFLXARS0	3	55.22%	160	291	300	97.0%			
VLPRFLXADS0	3	55.22%	184	334	400	83.5%			
DFSPFLXADS0	3	55.22%	185	335	400	83.8%			
FRPTFLXARS0	3	55.22%	191	347	400	86.8%			
SNRSFLXARS0	3	55.22%	192	348	400	87.0%			
STRKFLXADS0	3	55.22%	209	378	400	94.5%			
DFSPFLXADS0	3	55.22%	212	385	400	96.3%			
CRVWFLXADS0	3	55.22%	240	435	600	72.5%			
CRVWFLXADS0	3	55.22%	253	460	600	76.7%			
TLHSFLXDDS0	3	55.22%	254	460	600	76.7%			
DFSPFLXADS0	3	55.22%	259	470	600	78.3%			
FTWBFLXCRS0	3	55.22%	297	538	600	89.7%			
CRVWFLXADS0	3	55.22%	304	551	600	91.8%			
TLHSFLXBDS0	3	55.22%	327	593	600	98.8%			
CRVWFLXADS0	3	55.22%	347	628	900	69.8%			
SGBHFLXARS0	3	55.22%	381	690	900	76.7%			
TLHSFLXHDS0	3	55.22%	386	700	900	77.8%			
WSTVFLXARS0	3	55.22%	401	727	900	80.8%			
TLHSFLXGDS0	3	55.22%	438	794	900	88.2%			
VLPRFLXADS0	3	55.22%	481	871	900	96.8%			

Clli	Density	Feeder Fill	Total Lines Served in Grid	Eng. Lines	Standard Cable Size	Effective Fill	Sum of Lines by Density	Sum of Standard Cable Pairs	Fill by Density Zone
TLHSFLXDDS0	3	55.22%	506	918	1,200	76.5%			
MNTIFLXADS0	3	55.22%	564	1,022	1,200	85.2%			
MRNNFLXADS0	3	55.22%	579	1,049	1,200	87.4%			
TLHSFLXDDS0	3	55.22%	589	1,067	1,200	88.9%			
TLHSFLXDDS0	3	55.22%	612	1,108	1,200	92.3%			
VLPRFLXADS0	3	55.22%	668	1,211	1,800	67.3%			
TLHSFLXFDS0	3	55.22%	684	1,239	1,800	68.8%			
FRPTFLXARS0	3	55.22%	693	1,256	1,800	69.8%			
TLHSFLXDDS0	3	55.22%	734	1,329	1,800	73.8%			
DFSPFLXADS0	3	55.22%	762	1,381	1,800	76.7%			
DFSPFLXADS0	3	55.22%	772	1,398	1,800	77.7%			
CFVLFLXADS0	3	55.22%	788	1,428	1,800	79.3%			
CRVWFLXADS0	3	55.22%	811	1,470	1,800	81.7%			
MRNNFLXADS0	3	55.22%	827	1,498	1,800	83.2%			
SNDSFLXARS0	3	55.22%	832	1,508	1,800	83.8%			
TLHSFLXCDS0	3	55.22%	852	1,543	1,800	85.7%			
TLHSFLXDDS0	3	55.22%	875	1,585	1,800	88.1%			
TLHSFLXFDS0	3	55.22%	922	1,671	1,800	92.8%			
DFSPFLXADS0	3	55.22%	1,099	1,991	2,100	94.8%			
CFVLFLXADS0	3	55.22%	1,107	2,005	2,100	95.5%	21,360	46,700	45.7%
VLPRFLXADS0	4	55.48%	81	147	200	73.5%			
MDSNFLXADS0	4	55.48%	129	234	300	78.0%			
VLPRFLXADS0	4	55.48%	140	253	300	84.3%			
TLHSFLXCDS0	4	55.48%	145	261	300	87.0%			
TLHSFLXDDS0	4	55.48%	148	267	300	89.0%			
SHLMFLXADS0	4	55.48%	153	275	300	91.7%			
VLPRFLXADS0	4	55.48%	156	282	300	94.0%			
MRNNFLXADS0	4	55.48%	165	298	300	99.3%			
MNTIFLXADS0	4	55.48%	169	305	400	76.3%			
TLHSFLXHDS0	4	55.48%	185	334	400	83.5%			
SNRSFLXARS0	4	55.48%	188	339	400	84.8%			
MRNNFLXADS0	4	55.48%	197	355	400	88.8%			
MRNNFLXADS0	4	55.48%	197	356	400	89.0%			
TLHSFLXCDS0	4	55.48%	198	357	400	89.3%			
VLPRFLXADS0	4	55.48%	198	357	400	89.3%			
CRVWFLXADS0	4	55.48%	203	367	400	91.8%			
TLHSFLXDDS0	4	55.48%	205	370	400	92.5%			
TLHSFLXHDS0	4	55.48%	208	375	400	93.8%			
TLHSFLXFDS0	4	55.48%	211	381	400	95.3%			
MRNNFLXADS0	4	55.48%	212	383	400	95.8%			
TLHSFLXBDS0	4	55.48%	213	385	400	96.3%			
TLHSFLXCDS0	4	55.48%	216	390	400	97.5%			
CRVWFLXADS0	4	55.48%	221	398	400	99.5%			
SNRSFLXARS0	4	55.48%	233	421	600	70.2%			
VLPRFLXADS0	4	55.48%	235	424	600	70.7%			
TLHSFLXCDS0	4	55.48%	245	443	600	73.8%			
VLPRFLXADS0	4	55.48%	247	446	600	74.3%			
STRKFLXADS0	4	55.48%	250	451	600	75.2%			
TLHSFLXHDS0	4	55.48%	252	455	600	75.8%			
MRNNFLXADS0	4	55.48%	263	474	600	79.0%			
VLPRFLXADS0	4	55.48%	331	597	600	99.5%			
SNRSFLXARS0	4	55.48%	339	611	900	67.9%			
VLPRFLXADS0	4	55.48%	346	624	900	69.3%			
MDSNFLXADS0	4	55.48%	348	629	900	69.9%			
FTWBFLXADS0	4	55.48%	365	658	900	73.1%			

CIII	Density	Feeder Fill	Total Lines Served in Grid	Eng. Lines	Standard Cable Size	Effective Fill	Sum of Lines by Density	Sum of Standard Cable Pairs	Fill by Density Zone
STRKFLXADS0	4	55.48%	379	683	900	75.9%			
VLPRFLXADS0	4	55.48%	383	690	900	76.7%			
MNTIFLXADS0	4	55.48%	390	704	900	78.2%			
VLPRFLXADS0	4	55.48%	395	713	900	79.2%			
VLPRFLXADS0	4	55.48%	399	720	900	80.0%			
MDSNFLXADS0	4	55.48%	404	728	900	80.9%			
VLPRFLXADS0	4	55.48%	414	746	900	82.9%			
TLHSFLXHDS0	4	55.48%	420	757	900	84.1%			
CRVWFLXADS0	4	55.48%	433	782	900	86.9%			
CRVWFLXADS0	4	55.48%	452	815	900	90.6%			
MRNNFLXADS0	4	55.48%	454	820	900	91.1%			
TLHSFLXDDS0	4	55.48%	483	871	900	96.8%			
FTWBFLXBDS0	4	55.48%	541	975	1,200	81.3%			
TLHSFLXCDS0	4	55.48%	561	1,011	1,200	84.3%			
CRVWFLXADS0	4	55.48%	586	1,056	1,200	88.0%			
SGBHFLXARS0	4	55.48%	602	1,085	1,200	90.4%			
TLHSFLXCDS0	4	55.48%	603	1,087	1,200	90.6%			
TLHSFLXDDS0	4	55.48%	615	1,109	1,200	92.4%			
BNFYFLXARS0	4	55.48%	676	1,220	1,800	67.8%			
MDSNFLXADS0	4	55.48%	677	1,221	1,800	67.8%			
TLHSFLXDDS0	4	55.48%	689	1,243	1,800	69.1%			
STRKFLXADS0	4	55.48%	700	1,262	1,800	70.1%			
FTWBFLXCRS0	4	55.48%	729	1,314	1,800	73.0%			
MRNNFLXADS0	4	55.48%	740	1,335	1,800	74.2%			
CRVWFLXADS0	4	55.48%	773	1,394	1,800	77.4%			
TLHSFLXCDS0	4	55.48%	775	1,397	1,800	77.6%			
DFSPFLXADS0	4	55.48%	787	1,418	1,800	78.8%			
TLHSFLXCDS0	4	55.48%	797	1,438	1,800	79.9%			
TLHSFLXHDS0	4	55.48%	873	1,575	1,800	87.5%			
CRVWFLXADS0	4	55.48%	882	1,590	1,800	88.3%			
DESTFLXADS0	4	55.48%	919	1,657	1,800	92.1%			
TLHSFLXDDS0	4	55.48%	924	1,665	1,800	92.5%			
CRVWFLXADS0	4	55.48%	978	1,764	1,800	98.0%			
TLHSFLXFDS0	4	55.48%	1,014	1,828	2,100	87.0%			
TLHSFLXHDS0	4	55.48%	1,017	1,834	2,100	87.3%			
TLHSFLXFDS0	4	55.48%	1,020	1,840	2,100	87.6%			
TLHSFLXDDS0	4	55.48%	1,043	1,881	2,100	89.6%			
TLHSFLXFDS0	4	55.48%	1,075	1,938	2,100	92.3%			
TLHSFLXCDS0	4	55.48%	1,093	1,970	2,100	93.8%			
FTWBFLXCRS0	4	55.48%	1,223	2,204	2,400	91.8%			
TLHSFLXFDS0	4	55.48%	1,310	2,362	2,400	98.4%			
TLHSFLXDDS0	4	55.48%	1,353	2,438	3,000	81.3%			
TLHSFLXGDS0	4	55.48%	1,393	2,512	3,000	83.7%			
TLHSFLXFDS0	4	55.48%	1,492	2,690	3,000	89.7%	41,055	88,100	46.6%
CRVWFLXADS0	5	55.74%	258	463	600	77.2%			
VLPRFLXADS0	5	55.74%	261	469	600	78.2%			
SGBHFLXARS0	5	55.74%	265	476	600	79.3%			
TLHSFLXCDS0	5	55.74%	266	477	600	79.5%			
VLPRFLXADS0	5	55.74%	283	508	600	84.7%			
TLHSFLXHDS0	5	55.74%	287	515	600	85.8%			
CRVWFLXADS0	5	55.74%	303	544	600	90.7%			
TLHSFLXBDS0	5	55.74%	309	555	600	92.5%			
TLHSFLXCDS0	5	55.74%	309	555	600	92.5%			
TLHSFLXFDS0	5	55.74%	313	563	600	93.8%			
VLPRFLXADS0	5	55.74%	332	596	600	99.3%			

Clli	Density	Feeder Fill	Total Lines Served in Grid	Eng. Lines	Standard Cable Size	Effective Fill	Sum of Lines by Density	Sum of Standard Cable Pairs	Fill by Density Zone
TLHSFLXBDS0	5	55.74%	334	599	600	99.8%			
TLHSFLXDDS0	5	55.74%	334	599	600	99.8%			
SNRSFLXARS0	5	55.74%	359	645	900	71.7%			
SGBHFLXARS0	5	55.74%	378	678	900	75.3%			
SNRSFLXARS0	5	55.74%	467	838	900	93.1%			
TLHSFLXCDS0	5	55.74%	495	889	900	98.8%			
CRVWFLXADS0	5	55.74%	531	953	1,200	79.4%			
VLPRFLXADS0	5	55.74%	588	1,055	1,200	87.9%			
SGBHFLXARS0	5	55.74%	631	1,133	1,200	94.4%			
VLPRFLXADS0	5	55.74%	752	1,349	1,800	74.9%			
DESTFLXADS0	5	55.74%	775	1,392	1,800	77.3%			
TLHSFLXDDS0	5	55.74%	858	1,539	1,800	85.5%			
CRVWFLXADS0	5	55.74%	1,069	1,919	2,100	91.4%			
TLHSFLXBDS0	5	55.74%	1,089	1,954	2,100	93.0%			
TLHSFLXFDS0	5	55.74%	1,329	2,385	2,400	99.4%	13,174	27,000	48.8%
SNRSFLXARS0	6	56.01%	59	106	200	53.0%			
WRSWINXADS0	6	56.01%	87	156	200	78.0%			
WRSWINXADS0	6	56.01%	91	163	200	81.5%			
FTWBFLXBDS0	6	56.01%	119	213	300	71.0%			
FTWBFLXBDS0	6	56.01%	120	214	300	71.3%			
FTWBFLXBDS0	6	56.01%	134	240	300	80.0%			
FTWBFLXADS0	6	56.01%	135	241	300	80.3%			
FTWBFLXBDS0	6	56.01%	137	245	300	81.7%			
FTWBFLXBDS0	6	56.01%	138	247	300	82.3%			
FTWBFLXADS0	6	56.01%	139	249	300	83.0%			
FTWBFLXBDS0	6	56.01%	145	259	300	86.3%			
FTWBFLXBDS0	6	56.01%	146	261	300	87.0%			
SHLMFLXADS0	6	56.01%	146	262	300	87.3%			
FTWBFLXADS0	6	56.01%	149	267	300	89.0%			
WRSWINXADS0	6	56.01%	157	280	300	93.3%			
FTWBFLXADS0	6	56.01%	158	283	300	94.3%			
MDSNFLXADS0	6	56.01%	160	285	300	95.0%			
MDSNFLXADS0	6	56.01%	170	304	400	76.0%			
TLHSFLXCDS0	6	56.01%	176	314	400	78.5%			
TLHSFLXCDS0	6	56.01%	177	317	400	79.3%			
VLPRFLXADS0	6	56.01%	181	324	400	81.0%			
WRSWINXADS0	6	56.01%	185	330	400	82.5%			
SNRSFLXARS0	6	56.01%	196	350	400	87.5%			
TLHSFLXCDS0	6	56.01%	196	350	400	87.5%			
FTWBFLXBDS0	6	56.01%	201	360	400	90.0%			
WRSWINXADS0	6	56.01%	203	362	400	90.5%			
FTWBFLXADS0	6	56.01%	204	364	400	91.0%			
FTWBFLXADS0	6	56.01%	204	366	400	91.5%			
FTWBFLXBDS0	6	56.01%	205	367	400	91.8%			
SNRSFLXARS0	6	56.01%	206	368	400	92.0%			
TLHSFLXCDS0	6	56.01%	207	370	400	92.5%			
FTWBFLXBDS0	6	56.01%	211	377	400	94.3%			
SHLMFLXADS0	6	56.01%	212	380	400	95.0%			
TLHSFLXBDS0	6	56.01%	215	384	400	96.0%			
TLHSFLXCDS0	6	56.01%	215	385	400	96.3%			
FTWBFLXADS0	6	56.01%	216	386	400	96.5%			
TLHSFLXDDS0	6	56.01%	224	401	600	66.8%			
TLHSFLXCDS0	6	56.01%	225	402	600	67.0%			
TLHSFLXCDS0	6	56.01%	229	410	600	68.3%			
VLPRFLXADS0	6	56.01%	235	419	600	69.8%			

Clli	Density	Feeder Fill	Total Lines Served in Grid	Eng. Lines	Standard Cable Size	Effective Fill	Sum of Lines by Density	Sum of Standard Cable Pairs	Fill by Density Zone
TLHSFLXCDS0	6	56.01%	239	428	600	71.3%			
FTWBFLXBDS0	6	56.01%	240	430	600	71.7%			
SNRSFLXARS0	6	56.01%	245	437	600	72.8%			
MDSNFLXADS0	6	56.01%	245	438	600	73.0%			
TLHSFLXDDS0	6	56.01%	283	506	600	84.3%			
VLPRFLXADS0	6	56.01%	293	523	600	87.2%			
VLPRFLXADS0	6	56.01%	294	525	600	87.5%			
FTWBFLXBDS0	6	56.01%	295	528	600	88.0%			
VLPRFLXADS0	6	56.01%	313	559	600	93.2%			
FTWBFLXADS0	6	56.01%	314	561	600	93.5%			
BNFYFLXARS0	6	56.01%	320	571	600	95.2%			
VLPRFLXADS0	6	56.01%	322	575	600	95.8%			
VLPRFLXADS0	6	56.01%	331	591	600	98.5%			
SHLMFLXADS0	6	56.01%	338	605	900	67.2%			
TLHSFLXHDS0	6	56.01%	344	614	900	68.2%			
WRSWINXADS0	6	56.01%	353	631	900	70.1%			
TLHSFLXBDS0	6	56.01%	360	644	900	71.6%			
FTWBFLXBDS0	6	56.01%	362	646	900	71.8%			
MDSNFLXADS0	6	56.01%	363	648	900	72.0%			
MNTIFLXADS0	6	56.01%	366	654	900	72.7%			
TLHSFLXFDS0	6	56.01%	367	655	900	72.8%			
WRSWINXADS0	6	56.01%	369	660	900	73.3%			
DFSPFLXADS0	6	56.01%	370	662	900	73.6%			
WRSWINXADS0	6	56.01%	371	662	900	73.6%			
MRNNFLXADS0	6	56.01%	371	662	900	73.6%			
FTWBFLXBDS0	6	56.01%	374	669	900	74.3%			
TLHSFLXFDS0	6	56.01%	375	671	900	74.6%			
SHLMFLXADS0	6	56.01%	376	671	900	74.6%			
TLHSFLXBDS0	6	56.01%	378	675	900	75.0%			
FTWBFLXBDS0	6	56.01%	388	694	900	77.1%			
BNFYFLXARS0	6	56.01%	389	696	900	77.3%			
TLHSFLXDDS0	6	56.01%	390	697	900	77.4%			
TLHSFLXCDS0	6	56.01%	391	699	900	77.7%			
WRSWINXADS0	6	56.01%	394	703	900	78.1%			
CRVWFLXADS0	6	56.01%	396	708	900	78.7%			
TLHSFLXFDS0	6	56.01%	409	731	900	81.2%			
TLHSFLXFDS0	6	56.01%	409	731	900	81.2%			
DESTFLXADS0	6	56.01%	412	736	900	81.8%			
TLHSFLXBDS0	6	56.01%	412	736	900	81.8%			
SHLMFLXADS0	6	56.01%	417	744	900	82.7%			
MNTIFLXADS0	6	56.01%	418	747	900	83.0%			
TLHSFLXBDS0	6	56.01%	419	749	900	83.2%			
FTWBFLXADS0	6	56.01%	421	753	900	83.7%			
VLPRFLXADS0	6	56.01%	422	753	900	83.7%			
TLHSFLXHDS0	6	56.01%	425	759	900	84.3%			
TLHSFLXCDS0	6	56.01%	426	762	900	84.7%			
TLHSFLXDDS0	6	56.01%	427	764	900	84.9%			
TLHSFLXHDS0	6	56.01%	443	791	900	87.9%			
DESTFLXADS0	6	56.01%	444	793	900	88.1%			
TLHSFLXDDS0	6	56.01%	448	800	900	88.9%			
VLPRFLXADS0	6	56.01%	453	809	900	89.9%			
VLPRFLXADS0	6	56.01%	453	810	900	90.0%			
FTWBFLXBDS0	6	56.01%	457	817	900	90.8%			
VLPRFLXADS0	6	56.01%	467	835	900	92.8%			
TLHSFLXBDS0	6	56.01%	468	836	900	92.9%			

CIli	Density	Feeder Fill	Total Lines Served in Grid	Eng. Lines	Standard Cable Size	Effective Fill	Sum of Lines by Density	Sum of Standard Cable Pairs	Fill by Density Zone
TLHSFLXDDS0	6	56.01%	471	842	900	93.6%			
FTWBFLXADS0	6	56.01%	475	848	900	94.2%			
MRNNFLXADS0	6	56.01%	477	852	900	94.7%			
MDSNFLXADS0	6	56.01%	481	860	900	95.6%			
SHLMFLXADS0	6	56.01%	483	862	900	95.8%			
FTWBFLXADS0	6	56.01%	483	864	900	96.0%			
FTWBFLXBDS0	6	56.01%	486	868	900	96.4%			
TLHSFLXCDS0	6	56.01%	488	872	900	96.9%			
VLPRFLXADS0	6	56.01%	491	878	900	97.6%			
FTWBFLXBDS0	6	56.01%	498	889	900	98.8%			
STRKFLXADS0	6	56.01%	501	894	900	99.3%			
TLHSFLXDDS0	6	56.01%	503	898	900	99.8%			
TLHSFLXCDS0	6	56.01%	513	917	1,200	76.4%			
SHLMFLXADS0	6	56.01%	514	918	1,200	76.5%			
TLHSFLXBDS0	6	56.01%	521	931	1,200	77.6%			
TLHSFLXCDS0	6	56.01%	521	931	1,200	77.6%			
WRSWINXADS0	6	56.01%	528	944	1,200	78.7%			
TLHSFLXCDS0	6	56.01%	531	948	1,200	79.0%			
FTWBFLXBDS0	6	56.01%	534	954	1,200	79.5%			
SGBHFLXARS0	6	56.01%	535	957	1,200	79.8%			
TLHSFLXBDS0	6	56.01%	540	966	1,200	80.5%			
TLHSFLXDDS0	6	56.01%	543	970	1,200	80.8%			
VLPRFLXADS0	6	56.01%	543	971	1,200	80.9%			
SHLMFLXADS0	6	56.01%	551	985	1,200	82.1%			
TLHSFLXCDS0	6	56.01%	554	990	1,200	82.5%			
TLHSFLXDDS0	6	56.01%	560	999	1,200	83.3%			
SHLMFLXADS0	6	56.01%	563	1,006	1,200	83.8%			
TLHSFLXHDS0	6	56.01%	565	1,010	1,200	84.2%			
FTWBFLXBDS0	6	56.01%	566	1,012	1,200	84.3%			
TLHSFLXHDS0	6	56.01%	568	1,014	1,200	84.5%			
TLHSFLXBDS0	6	56.01%	575	1,028	1,200	85.7%			
TLHSFLXDDS0	6	56.01%	584	1,044	1,200	87.0%			
TLHSFLXDDS0	6	56.01%	587	1,049	1,200	87.4%			
TLHSFLXCDS0	6	56.01%	589	1,052	1,200	87.7%			
TLHSFLXFDS0	6	56.01%	590	1,054	1,200	87.8%			
TLHSFLXBDS0	6	56.01%	597	1,066	1,200	88.8%			
TLHSFLXDDS0	6	56.01%	596	1,065	1,200	88.8%			
TLHSFLXBDS0	6	56.01%	601	1,073	1,200	89.4%			
TLHSFLXCDS0	6	56.01%	602	1,075	1,200	89.6%			
TLHSFLXBDS0	6	56.01%	603	1,077	1,200	89.8%			
CRVWFLXADS0	6	56.01%	608	1,087	1,200	90.6%			
TLHSFLXFDS0	6	56.01%	617	1,103	1,200	91.9%			
TLHSFLXDDS0	6	56.01%	619	1,106	1,200	92.2%			
MNTIFLXADS0	6	56.01%	624	1,115	1,200	92.9%			
FTWBFLXADS0	6	56.01%	660	1,179	1,200	98.3%			
TLHSFLXFDS0	6	56.01%	660	1,179	1,200	98.3%			
TLHSFLXFDS0	6	56.01%	668	1,193	1,200	99.4%			
FTWBFLXADS0	6	56.01%	671	1,198	1,200	99.8%			
FTWBFLXBDS0	6	56.01%	674	1,204	1,800	66.9%			
FTWBFLXBDS0	6	56.01%	677	1,209	1,800	67.2%			
TLHSFLXDDS0	6	56.01%	678	1,211	1,800	67.3%			
TLHSFLXFDS0	6	56.01%	679	1,212	1,800	67.3%			
TLHSFLXBDS0	6	56.01%	680	1,215	1,800	67.5%			
CRVWFLXADS0	6	56.01%	685	1,224	1,800	68.0%			
VLPRFLXADS0	6	56.01%	685	1,224	1,800	68.0%			

CIII	Density	Feeder Fill	Total Lines Served in Grid	Eng. Lines	Standard Cable Size	Effective Fill	Sum of Lines by Density	Sum of Standard Cable Pairs	Fill by Density Zone
TLHSFLXBDS0	6	56.01%	690	1,233	1,800	68.5%			
FTWBFLXBDS0	6	56.01%	698	1,246	1,800	69.2%			
TLHSFLXDDS0	6	56.01%	698	1,247	1,800	69.3%			
TLHSFLXFDS0	6	56.01%	698	1,247	1,800	69.3%			
WRSWINXADS0	6	56.01%	699	1,248	1,800	69.3%			
TLHSFLXDDS0	6	56.01%	703	1,256	1,800	69.8%			
FTWBFLXBDS0	6	56.01%	705	1,260	1,800	70.0%			
DFSPFLXADS0	6	56.01%	715	1,276	1,800	70.9%			
TLHSFLXDDS0	6	56.01%	729	1,303	1,800	72.4%			
TLHSFLXDDS0	6	56.01%	736	1,314	1,800	73.0%			
TLHSFLXHDS0	6	56.01%	738	1,317	1,800	73.2%			
SHLMFLXADS0	6	56.01%	739	1,321	1,800	73.4%			
TLHSFLXBDS0	6	56.01%	746	1,333	1,800	74.1%			
WRSWINXADS0	6	56.01%	746	1,333	1,800	74.1%			
TLHSFLXDDS0	6	56.01%	747	1,334	1,800	74.1%			
TLHSFLXBDS0	6	56.01%	747	1,335	1,800	74.2%			
TLHSFLXDDS0	6	56.01%	748	1,336	1,800	74.2%			
TLHSFLXHDS0	6	56.01%	766	1,368	1,800	76.0%			
FTWBFLXBDS0	6	56.01%	776	1,386	1,800	77.0%			
CRVWFLXADS0	6	56.01%	779	1,391	1,800	77.3%			
STRKFLXADS0	6	56.01%	781	1,395	1,800	77.5%			
FTWBFLXADS0	6	56.01%	781	1,395	1,800	77.5%			
TLHSFLXHDS0	6	56.01%	783	1,399	1,800	77.7%			
TLHSFLXCDS0	6	56.01%	784	1,401	1,800	77.8%			
CRVWFLXADS0	6	56.01%	801	1,431	1,800	79.5%			
TLHSFLXDDS0	6	56.01%	812	1,450	1,800	80.6%			
STRKFLXADS0	6	56.01%	814	1,454	1,800	80.8%			
TLHSFLXDDS0	6	56.01%	837	1,494	1,800	83.0%			
FTWBFLXADS0	6	56.01%	841	1,503	1,800	83.5%			
TLHSFLXDDS0	6	56.01%	841	1,502	1,800	83.4%			
SHLMFLXADS0	6	56.01%	846	1,510	1,800	83.9%			
SHLMFLXADS0	6	56.01%	860	1,537	1,800	85.4%			
FTWBFLXADS0	6	56.01%	888	1,587	1,800	88.2%			
TLHSFLXBDS0	6	56.01%	897	1,602	1,800	89.0%			
FTWBFLXBDS0	6	56.01%	905	1,616	1,800	89.8%			
FTWBFLXBDS0	6	56.01%	936	1,672	1,800	92.9%			
WRSWINXADS0	6	56.01%	948	1,694	1,800	94.1%			
MRNNFLXADS0	6	56.01%	951	1,699	1,800	94.4%			
TLHSFLXDDS0	6	56.01%	958	1,711	1,800	95.1%			
TLHSFLXBDS0	6	56.01%	967	1,726	1,800	95.9%			
MRNNFLXADS0	6	56.01%	971	1,735	1,800	96.4%			
CRVWFLXADS0	6	56.01%	977	1,744	1,800	96.9%			
TLHSFLXBDS0	6	56.01%	1,036	1,851	2,100	88.1%			
DESTFLXADS0	6	56.01%	1,052	1,878	2,100	89.4%			
FTWBFLXCRS0	6	56.01%	1,075	1,921	2,100	91.5%			
WRSWINXADS0	6	56.01%	1,109	1,980	2,100	94.3%			
FTWBFLXCRS0	6	56.01%	1,128	2,015	2,100	96.0%			
TLHSFLXCDS0	6	56.01%	1,141	2,038	2,100	97.0%			
TLHSFLXBDS0	6	56.01%	1,198	2,139	2,400	89.1%			
TLHSFLXDDS0	6	56.01%	1,204	2,150	2,400	89.6%			
SHLMFLXADS0	6	56.01%	1,221	2,180	2,400	90.8%			
TLHSFLXHDS0	6	56.01%	1,394	2,489	3,000	83.0%			
TLHSFLXBDS0	6	56.01%	1,580	2,821	3,000	94.0%			
WSTVFLXARS0	6	56.01%	6,817	12,172	12,200	99.8%	112,615	240,600	46.8%
PTLDINXARS1	7	56.27%	9	16	18	88.9%			

Clli	Density	Feeder Fill	Total Lines Served in Grid	Eng. Lines	Standard Cable Size	Effective Fill	Sum of Lines by Density	Sum of Standard Cable Pairs	Fill by Density Zone
RNSLINXARS1	7	56.27%	12	22	25	88.0%			
BRMNINXARS1	7	56.27%	34	62	100	62.0%			
BRMNINXARS1	7	56.27%	34	62	100	62.0%			
DCTRINXADS0	7	56.27%	36	64	100	64.0%			
RSSNINXARS1	7	56.27%	41	73	100	73.0%			
BRMNINXARS1	7	56.27%	49	88	100	88.0%			
TLHSFLXCDS0	7	56.27%	168	298	300	99.3%			
TLHSFLXCDS0	7	56.27%	168	298	300	99.3%			
DCTRINXADS0	7	56.27%	174	310	400	77.5%			
SNRSFLXARS0	7	56.27%	185	330	400	82.5%			
SNRSFLXARS0	7	56.27%	185	330	400	82.5%			
SNRSFLXARS0	7	56.27%	242	430	600	71.7%			
SNRSFLXARS0	7	56.27%	242	430	600	71.7%			
TLHSFLXADS0	7	56.27%	247	439	600	73.2%			
TLHSFLXADS0	7	56.27%	247	439	600	73.2%			
TLHSFLXCDS0	7	56.27%	253	450	600	75.0%			
TLHSFLXCDS0	7	56.27%	253	450	600	75.0%			
TLHSFLXCDS0	7	56.27%	254	452	600	75.3%			
TLHSFLXCDS0	7	56.27%	254	452	600	75.3%			
TLHSFLXCDS0	7	56.27%	266	473	600	78.8%			
TLHSFLXCDS0	7	56.27%	266	473	600	78.8%			
TLHSFLXCDS0	7	56.27%	266	473	600	78.8%			
TLHSFLXCDS0	7	56.27%	266	473	600	78.8%			
FTWBFLXADS0	7	56.27%	272	483	600	80.5%			
FTWBFLXADS0	7	56.27%	272	483	600	80.5%			
PLMOINXADS0	7	56.27%	272	484	600	80.7%			
MNTIINXADS0	7	56.27%	277	493	600	82.2%			
SHLMFLXADS0	7	56.27%	283	504	600	84.0%			
SHLMFLXADS0	7	56.27%	283	504	600	84.0%			
TLHSFLXCDS0	7	56.27%	306	544	600	90.7%			
TLHSFLXCDS0	7	56.27%	306	544	600	90.7%			
FTWBFLXADS0	7	56.27%	315	560	600	93.3%			
FTWBFLXADS0	7	56.27%	315	560	600	93.3%			
TLHSFLXBDS0	7	56.27%	333	593	600	98.8%			
TLHSFLXBDS0	7	56.27%	333	593	600	98.8%			
FTWBFLXADS0	7	56.27%	338	600	600	100.0%			
FTWBFLXADS0	7	56.27%	338	600	600	100.0%			
NPPNINXARS1	7	56.27%	338	600	600	100.0%			
TLHSFLXCDS0	7	56.27%	340	605	900	67.2%			
TLHSFLXCDS0	7	56.27%	340	605	900	67.2%			
FTWBFLXBDS0	7	56.27%	347	617	900	68.6%			
FTWBFLXBDS0	7	56.27%	347	617	900	68.6%			
FTWBFLXBDS0	7	56.27%	352	625	900	69.4%			
FTWBFLXBDS0	7	56.27%	352	625	900	69.4%			
SNRSFLXARS0	7	56.27%	359	639	900	71.0%			
SNRSFLXARS0	7	56.27%	359	639	900	71.0%			
TLHSFLXADS0	7	56.27%	362	643	900	71.4%			
TLHSFLXADS0	7	56.27%	362	643	900	71.4%			
TLHSFLXCDS0	7	56.27%	367	653	900	72.6%			
TLHSFLXCDS0	7	56.27%	367	653	900	72.6%			
FTWBFLXBDS0	7	56.27%	369	657	900	73.0%			
FTWBFLXBDS0	7	56.27%	369	657	900	73.0%			
TLHSFLXCDS0	7	56.27%	371	660	900	73.3%			
TLHSFLXCDS0	7	56.27%	371	660	900	73.3%			
NPPNINXARS1	7	56.27%	371	660	900	73.3%			

CIII	Density	Feeder Fill	Total Lines Served in Grid	Eng. Lines	Standard Cable Size	Effective Fill	Sum of Lines by Density	Sum of Standard Cable Pairs	Fill by Density Zone
FTWBFLXADS0	7	56.27%	378	672	900	74.7%			
FTWBFLXADS0	7	56.27%	378	672	900	74.7%			
TLHSFLXCDS0	7	56.27%	384	683	900	75.9%			
TLHSFLXCDS0	7	56.27%	384	683	900	75.9%			
DESTFLXADS0	7	56.27%	390	693	900	77.0%			
DESTFLXADS0	7	56.27%	390	693	900	77.0%			
TLHSFLXCDS0	7	56.27%	394	701	900	77.9%			
TLHSFLXCDS0	7	56.27%	394	701	900	77.9%			
TLHSFLXDDS0	7	56.27%	407	723	900	80.3%			
TLHSFLXDDS0	7	56.27%	407	723	900	80.3%			
FTWBFLXADS0	7	56.27%	414	736	900	81.8%			
FTWBFLXADS0	7	56.27%	414	736	900	81.8%			
FTWBFLXADS0	7	56.27%	425	755	900	83.9%			
FTWBFLXADS0	7	56.27%	425	755	900	83.9%			
TLHSFLXCDS0	7	56.27%	428	761	900	84.6%			
TLHSFLXCDS0	7	56.27%	428	761	900	84.6%			
TLHSFLXCDS0	7	56.27%	428	762	900	84.7%			
TLHSFLXCDS0	7	56.27%	428	762	900	84.7%			
FTWBFLXADS0	7	56.27%	436	776	900	86.2%			
FTWBFLXADS0	7	56.27%	436	776	900	86.2%			
SHLMFLXADS0	7	56.27%	438	779	900	86.6%			
SHLMFLXADS0	7	56.27%	438	779	900	86.6%			
WRSWINXADS0	7	56.27%	448	797	900	88.6%			
FTWBFLXBDS0	7	56.27%	454	807	900	89.7%			
FTWBFLXBDS0	7	56.27%	454	807	900	89.7%			
TLHSFLXDDS0	7	56.27%	456	811	900	90.1%			
TLHSFLXDDS0	7	56.27%	456	811	900	90.1%			
DESTFLXADS0	7	56.27%	469	834	900	92.7%			
DESTFLXADS0	7	56.27%	469	834	900	92.7%			
DESTFLXADS0	7	56.27%	477	849	900	94.3%			
DESTFLXADS0	7	56.27%	477	849	900	94.3%			
DESTFLXADS0	7	56.27%	515	915	1,200	76.3%			
DESTFLXADS0	7	56.27%	515	915	1,200	76.3%			
DESTFLXADS0	7	56.27%	516	917	1,200	76.4%			
DESTFLXADS0	7	56.27%	516	917	1,200	76.4%			
TLHSFLXCDS0	7	56.27%	522	928	1,200	77.3%			
TLHSFLXCDS0	7	56.27%	522	928	1,200	77.3%			
DESTFLXADS0	7	56.27%	555	987	1,200	82.3%			
DESTFLXADS0	7	56.27%	555	987	1,200	82.3%			
FTWBFLXADS0	7	56.27%	639	1,136	1,200	94.7%			
FTWBFLXADS0	7	56.27%	639	1,136	1,200	94.7%			
TLHSFLXCDS0	7	56.27%	718	1,276	1,800	70.9%			
TLHSFLXCDS0	7	56.27%	718	1,276	1,800	70.9%			
FTWBFLXADS0	7	56.27%	735	1,306	1,800	72.6%			
FTWBFLXADS0	7	56.27%	735	1,306	1,800	72.6%			
TLHSFLXBDS0	7	56.27%	780	1,387	1,800	77.1%			
TLHSFLXBDS0	7	56.27%	780	1,387	1,800	77.1%			
FTWBFLXADS0	7	56.27%	835	1,485	1,800	82.5%			
FTWBFLXADS0	7	56.27%	835	1,485	1,800	82.5%			
TLHSFLXDDS0	7	56.27%	864	1,536	1,800	85.3%			
TLHSFLXDDS0	7	56.27%	864	1,536	1,800	85.3%			
TLHSFLXFDS0	7	56.27%	929	1,651	1,800	91.7%			
TLHSFLXFDS0	7	56.27%	929	1,651	1,800	91.7%			
TLHSFLXBDS0	7	56.27%	939	1,668	1,800	92.7%			
TLHSFLXBDS0	7	56.27%	939	1,668	1,800	92.7%			

Clli	Density	Feeder Fill	Total Lines Served in Grid	Eng. Lines	Standard Cable Size	Effective Fill	Sum of Lines by Density	Sum of Standard Cable Pairs	Fill by Density Zone
TLHSFLXFDS0	7	56.27%	973	1,729	1,800	96.1%			
TLHSFLXFDS0	7	56.27%	973	1,729	1,800	96.1%			
TLHSFLXBDS0	7	56.27%	997	1,772	1,800	98.4%			
TLHSFLXBDS0	7	56.27%	997	1,772	1,800	98.4%			
DESTFLXADS0	7	56.27%	1,015	1,805	2,100	86.0%			
DESTFLXADS0	7	56.27%	1,015	1,805	2,100	86.0%			
DESTFLXADS0	7	56.27%	1,016	1,805	2,100	86.0%			
DESTFLXADS0	7	56.27%	1,016	1,805	2,100	86.0%			
TLHSFLXDDS0	7	56.27%	1,041	1,851	2,100	88.1%			
TLHSFLXDDS0	7	56.27%	1,041	1,851	2,100	88.1%			
FTWBFLXBDS0	7	56.27%	1,042	1,853	2,100	88.2%			
FTWBFLXBDS0	7	56.27%	1,042	1,853	2,100	88.2%			
FTWBFLXADS0	7	56.27%	1,043	1,854	2,100	88.3%			
FTWBFLXADS0	7	56.27%	1,043	1,854	2,100	88.3%			
TLHSFLXBDS0	7	56.27%	1,045	1,858	2,100	88.5%			
TLHSFLXBDS0	7	56.27%	1,045	1,858	2,100	88.5%			
TLHSFLXFDS0	7	56.27%	1,058	1,881	2,100	89.6%			
TLHSFLXFDS0	7	56.27%	1,058	1,881	2,100	89.6%			
TLHSFLXDDS0	7	56.27%	1,059	1,882	2,100	89.6%			
TLHSFLXDDS0	7	56.27%	1,059	1,882	2,100	89.6%			
FKLNINXADS0	7	56.27%	1,064	1,891	2,100	90.0%			
FTWBFLXBDS0	7	56.27%	1,099	1,953	2,100	93.0%			
FTWBFLXBDS0	7	56.27%	1,099	1,953	2,100	93.0%			
TLHSFLXBDS0	7	56.27%	1,131	2,011	2,100	95.8%			
TLHSFLXBDS0	7	56.27%	1,131	2,011	2,100	95.8%			
TLHSFLXDDS0	7	56.27%	1,141	2,027	2,100	96.5%			
TLHSFLXDDS0	7	56.27%	1,141	2,027	2,100	96.5%			
FTWBFLXBDS0	7	56.27%	1,141	2,029	2,100	96.6%			
FTWBFLXBDS0	7	56.27%	1,141	2,029	2,100	96.6%			
TLHSFLXBDS0	7	56.27%	1,142	2,031	2,100	96.7%			
TLHSFLXBDS0	7	56.27%	1,142	2,031	2,100	96.7%			
FTWBFLXBDS0	7	56.27%	1,170	2,080	2,100	99.0%			
FTWBFLXBDS0	7	56.27%	1,170	2,080	2,100	99.0%			
TLHSFLXDDS0	7	56.27%	1,174	2,087	2,100	99.4%			
TLHSFLXDDS0	7	56.27%	1,174	2,087	2,100	99.4%			
TLHSFLXDDS0	7	56.27%	1,181	2,098	2,100	99.9%			
TLHSFLXDDS0	7	56.27%	1,181	2,098	2,100	99.9%			
FTWBFLXADS0	7	56.27%	1,196	2,126	2,400	88.6%			
FTWBFLXADS0	7	56.27%	1,196	2,126	2,400	88.6%			
TLHSFLXADS0	7	56.27%	1,261	2,242	2,400	93.4%			
TLHSFLXADS0	7	56.27%	1,261	2,242	2,400	93.4%			
TLHSFLXFDS0	7	56.27%	1,272	2,261	2,400	94.2%			
TLHSFLXFDS0	7	56.27%	1,272	2,261	2,400	94.2%			
TLHSFLXADS0	7	56.27%	1,287	2,288	2,400	95.3%			
TLHSFLXADS0	7	56.27%	1,287	2,288	2,400	95.3%			
LRBGINXADS0	7	56.27%	1,296	2,303	2,400	96.0%			
FTWBFLXADS0	7	56.27%	1,308	2,326	2,400	96.9%			
FTWBFLXADS0	7	56.27%	1,308	2,326	2,400	96.9%			
FKLNINXADS0	7	56.27%	1,320	2,347	2,400	97.8%			
TLHSFLXDDS0	7	56.27%	1,445	2,569	3,000	85.6%			
TLHSFLXDDS0	7	56.27%	1,445	2,569	3,000	85.6%			
FTWBFLXADS0	7	56.27%	1,466	2,607	3,000	86.9%			
FTWBFLXADS0	7	56.27%	1,466	2,607	3,000	86.9%			
FTWBFLXADS0	7	56.27%	1,474	2,621	3,000	87.4%			
FTWBFLXADS0	7	56.27%	1,474	2,621	3,000	87.4%			

CLLI	Density	Feeder Fill	Total Lines Served in Grid	Eng. Lines	Standard Cable Size	Effective Fill	Sum of Lines by Density	Sum of Standard Cable Pairs	Fill by Density Zone
TLHSFLXDDS0	7	56.27%	1,501	2,668	3,000	88.9%			
TLHSFLXDDS0	7	56.27%	1,501	2,668	3,000	88.9%			
DESTFLXADS0	7	56.27%	1,925	3,422	3,600	95.1%			
DESTFLXADS0	7	56.27%	1,925	3,422	3,600	95.1%	116,019	235,443	49.3%
RNSLINXARS1	8	56.53%	7	13	18	72.2%			
PLMOINXADS0	8	56.53%	21	37	50	74.0%			
LGRNINXARS1	8	56.53%	33	59	100	59.0%			
PLMOINXADS0	8	56.53%	44	79	100	79.0%			
FKLNINXADS0	8	56.53%	45	81	100	81.0%			
LGRNINXARS1	8	56.53%	164	291	300	97.0%			
DESTFLXADS0	8	56.53%	172	305	400	76.3%			
DESTFLXADS0	8	56.53%	172	305	400	76.3%			
FKLNINXADS0	8	56.53%	278	492	600	82.0%			
WRSWINXADS0	8	56.53%	313	554	600	92.3%			
FTWBFLXADS0	8	56.53%	369	653	900	72.6%			
FTWBFLXADS0	8	56.53%	369	653	900	72.6%			
TLHSFLXCDS0	8	56.53%	400	708	900	78.7%			
TLHSFLXCDS0	8	56.53%	400	708	900	78.7%			
TLHSFLXCDS0	8	56.53%	420	744	900	82.7%			
TLHSFLXCDS0	8	56.53%	420	744	900	82.7%			
FTWBFLXADS0	8	56.53%	443	785	900	87.2%			
FTWBFLXADS0	8	56.53%	443	785	900	87.2%			
TLHSFLXCDS0	8	56.53%	479	847	900	94.1%			
TLHSFLXCDS0	8	56.53%	479	847	900	94.1%			
TLHSFLXADS0	8	56.53%	486	860	900	95.6%			
TLHSFLXADS0	8	56.53%	486	860	900	95.6%			
TLHSFLXADS0	8	56.53%	494	874	900	97.1%			
TLHSFLXADS0	8	56.53%	494	874	900	97.1%			
FTWBFLXBDS0	8	56.53%	497	880	900	97.8%			
FTWBFLXBDS0	8	56.53%	497	880	900	97.8%			
FTWBFLXADS0	8	56.53%	499	883	900	98.1%			
FTWBFLXADS0	8	56.53%	499	883	900	98.1%			
FTWBFLXBDS0	8	56.53%	501	887	900	98.6%			
FTWBFLXBDS0	8	56.53%	501	887	900	98.6%			
TLHSFLXADS0	8	56.53%	520	920	1,200	76.7%			
TLHSFLXADS0	8	56.53%	520	920	1,200	76.7%			
TLHSFLXADS0	8	56.53%	524	928	1,200	77.3%			
TLHSFLXADS0	8	56.53%	524	928	1,200	77.3%			
TLHSFLXCDS0	8	56.53%	530	938	1,200	78.2%			
TLHSFLXCDS0	8	56.53%	530	938	1,200	78.2%			
TLHSFLXADS0	8	56.53%	545	964	1,200	80.3%			
TLHSFLXADS0	8	56.53%	545	964	1,200	80.3%			
FTWBFLXBDS0	8	56.53%	552	976	1,200	81.3%			
FTWBFLXBDS0	8	56.53%	552	976	1,200	81.3%			
SHLMFLXADS0	8	56.53%	558	988	1,200	82.3%			
SHLMFLXADS0	8	56.53%	558	988	1,200	82.3%			
FTWBFLXADS0	8	56.53%	559	990	1,200	82.5%			
FTWBFLXADS0	8	56.53%	559	990	1,200	82.5%			
DESTFLXADS0	8	56.53%	578	1,023	1,200	85.3%			
DESTFLXADS0	8	56.53%	578	1,023	1,200	85.3%			
TLHSFLXCDS0	8	56.53%	588	1,041	1,200	86.8%			
TLHSFLXCDS0	8	56.53%	588	1,041	1,200	86.8%			
FTWBFLXADS0	8	56.53%	619	1,095	1,200	91.3%			
FTWBFLXADS0	8	56.53%	619	1,095	1,200	91.3%			
MDSNFLXADS0	8	56.53%	706	1,249	1,800	69.4%			

CLLI	Density	Feeder Fill	Total Lines Served in Grid	Eng. Lines	Standard Cable Size	Effective Fill	Sum of Lines by Density	Sum of Standard Cable Pairs	Fill by Density Zone
MDSNFLXADS0	8	56.53%	706	1,249	1,800	69.4%			
SHLMFLXADS0	8	56.53%	728	1,289	1,800	71.6%			
SHLMFLXADS0	8	56.53%	728	1,289	1,800	71.6%			
TLHSFLXCDS0	8	56.53%	730	1,292	1,800	71.8%			
TLHSFLXCDS0	8	56.53%	730	1,292	1,800	71.8%			
TLHSFLXDDS0	8	56.53%	740	1,310	1,800	72.8%			
TLHSFLXDDS0	8	56.53%	740	1,310	1,800	72.8%			
TLHSFLXADS0	8	56.53%	756	1,338	1,800	74.3%			
TLHSFLXADS0	8	56.53%	756	1,338	1,800	74.3%			
TLHSFLXADS0	8	56.53%	756	1,338	1,800	74.3%			
TLHSFLXADS0	8	56.53%	756	1,338	1,800	74.3%			
DESTFLXADS0	8	56.53%	767	1,357	1,800	75.4%			
DESTFLXADS0	8	56.53%	767	1,357	1,800	75.4%			
DESTFLXADS0	8	56.53%	782	1,384	1,800	76.9%			
DESTFLXADS0	8	56.53%	782	1,384	1,800	76.9%			
TLHSFLXADS0	8	56.53%	791	1,399	1,800	77.7%			
TLHSFLXADS0	8	56.53%	791	1,399	1,800	77.7%			
FTWBFLXBDS0	8	56.53%	848	1,500	1,800	83.3%			
FTWBFLXBDS0	8	56.53%	848	1,500	1,800	83.3%			
TLHSFLXADS0	8	56.53%	1,007	1,781	1,800	98.9%			
TLHSFLXADS0	8	56.53%	1,007	1,781	1,800	98.9%			
TLHSFLXADS0	8	56.53%	1,059	1,873	2,100	89.2%			
TLHSFLXADS0	8	56.53%	1,059	1,873	2,100	89.2%			
TLHSFLXADS0	8	56.53%	1,066	1,885	2,100	89.8%			
TLHSFLXADS0	8	56.53%	1,066	1,885	2,100	89.8%			
TLHSFLXADS0	8	56.53%	2,073	3,667	4,200	87.3%			
TLHSFLXADS0	8	56.53%	2,073	3,667	4,200	87.3%			
DESTFLXADS0	8	56.53%	2,200	3,892	4,200	92.7%			
DESTFLXADS0	8	56.53%	2,200	3,892	4,200	92.7%			
DESTFLXADS0	8	56.53%	2,583	4,570	4,600	99.3%			
DESTFLXADS0	8	56.53%	2,583	4,570	4,600	99.3%	56,758	118,668	47.8%
WRSWINXADS0	9	56.80%	296	522	600	87.0%			
DESTFLXADS0	9	56.80%	371	654	900	72.7%			
DESTFLXADS0	9	56.80%	371	654	900	72.7%			
TLHSFLXADS0	9	56.80%	605	1,066	1,200	88.8%			
TLHSFLXADS0	9	56.80%	605	1,066	1,200	88.8%			
DESTFLXADS0	9	56.80%	784	1,381	1,800	76.7%			
DESTFLXADS0	9	56.80%	784	1,381	1,800	76.7%			
TLHSFLXBDS0	9	56.80%	1,042	1,835	2,100	87.4%			
TLHSFLXBDS0	9	56.80%	1,042	1,835	2,100	87.4%			
TLHSFLXADS0	9	56.80%	1,052	1,853	2,100	88.2%			
TLHSFLXADS0	9	56.80%	1,052	1,853	2,100	88.2%			
DESTFLXADS0	9	56.80%	1,053	1,854	2,100	88.3%			
DESTFLXADS0	9	56.80%	1,053	1,854	2,100	88.3%			
TLHSFLXADS0	9	56.80%	1,089	1,917	2,100	91.3%			
TLHSFLXADS0	9	56.80%	1,089	1,917	2,100	91.3%			
TLHSFLXADS0	9	56.80%	1,126	1,983	2,100	94.4%			
TLHSFLXADS0	9	56.80%	1,126	1,983	2,100	94.4%			
TLHSFLXADS0	9	56.80%	1,318	2,321	2,400	96.7%			
TLHSFLXADS0	9	56.80%	1,318	2,321	2,400	96.7%			
TLHSFLXADS0	9	56.80%	1,369	2,411	3,000	80.4%			
TLHSFLXADS0	9	56.80%	1,369	2,411	3,000	80.4%			
FTWBFLXADS0	9	56.80%	1,376	2,423	3,000	80.8%			
FTWBFLXADS0	9	56.80%	1,376	2,423	3,000	80.8%			
TLHSFLXADS0	9	56.80%	1,527	2,689	3,000	89.6%			

CIli	Density	Feeder Fill	Total Lines Served in Grid	Eng. Lines	Standard Cable Size	Effective Fill	Sum of Lines by Density	Sum of Standard Cable Pairs	Fill by Density Zone
TLHSFLXADS0	9	56.80%	1,527	2,689	3,000	89.6%			
TLHSFLXADS0	9	56.80%	2,059	3,625	4,200	86.3%			
TLHSFLXADS0	9	56.80%	2,059	3,625	4,200	86.3%			
TLHSFLXADS0	9	56.80%	3,121	5,495	5,500	99.9%			
TLHSFLXADS0	9	56.80%	3,121	5,495	5,500	99.9%			
TLHSFLXADS0	9	56.80%	7,658	13,483	13,500	99.9%			
TLHSFLXADS0	9	56.80%	7,658	13,483	13,500	99.9%			
TLHSFLXADS0	9	56.80%	8,589	15,122	15,200	99.5%			
TLHSFLXADS0	9	56.80%	8,589	15,122	15,200	99.5%			
TLHSFLXADS0	9	56.80%	12,173	21,434	21,500	99.7%			
TLHSFLXADS0	9	56.80%	12,173	21,434	21,500	99.7%			
TLHSFLXADS0	9	56.80%	16,187	28,499	28,500	100.0%			
TLHSFLXADS0	9	56.80%	16,187	28,499	28,500	100.0%	125,293	229,000	54.7%
Total							552,761	1,140,265	48.5%

Florida
Cable Fill Factors

CLLI	Density	Lines	Exchange Fill %	Total Lines X Exchange Fill %								
				0-5 Density	6-100 Density	101-200 Density	201-650 Density	651-850 Density	851-2550 Density	2551-5000 Density	5001-10000 Density	>10001 Density
FRPTFLXARS0	1	151	42.87%	64.90								
SNRSFLXARS0	1	17	48.98%	8.41								
DFSPFLXADS0	1	39	42.84%	16.86								
CFVLFLXADS0	1	56	49.64%	27.76								
LEE FLXARS0	1	150	41.24%	61.98								
RYHLFLXARS0	1	30	52.58%	15.57								
VLPRFLXADS0	1	37	46.67%	17.20								
GLDLFLXARS0	1	90	35.11%	31.48								
GNWDFLXARS0	1	193	34.54%	66.79								
CRVWFLXADS0	1	40	44.44%	17.68								
TLHSFLXCDS0	1	84	46.70%	39.07								
STRKFLXADS0	1	25	43.51%	10.82								
MRNNFLXADS0	1	105	43.12%	45.38								
CTDLFLXARS0	1	26	39.61%	10.24								
MNTIFLXADS0	1	572	50.28%	287.68								
TLHSFLXFDS0	1	124	50.32%	62.40								
BAKRFLXADS0	1	341	46.84%	159.69								
PNLNFLXARS0	1	170	51.32%	87.22								
TLHSFLXDDS0	1	32	51.43%	16.23								
BNFYFLXARS0	1	145	44.67%	64.99								
FTWBFLXADS0	1	12	49.50%	5.71								
LWTYFLXARS0	1	50	49.26%	24.49								
ALFRFLXARS0	1	101	45.23%	45.47								
GNVLFLXARS0	1	464	43.87%	203.70								
CHLKFLXARS0	1	219	43.87%	95.92								
SNDSFLXARS0	1	36	52.60%	19.04								
FTWBFLXBDS0	1	55	53.60%	29.37								
PANCFLXARS0	1	26	45.40%	11.82								
KGLKFLXARS0	1	9	55.25%	4.74								
TLHSFLXGDS0	1	70	50.99%	35.92								
MDSNFLXADS0	1	41	50.22%	20.72								
MALNFLXARS0	1	136	59.18%	80.67								
STMKFLXARS0	1	35	56.50%	19.50								
SPCPFLXADS0	1	137	61.84%	84.44								
FRPTFLXARS0	2	1,594	42.87%		683							
WSTVFLXARS0	2	150	32.92%		50							
SNRSFLXARS0	2	1,261	48.98%		617							
DFSPFLXADS0	2	3,058	42.84%		1,310							

Florida
Cable Fill Factors

CLLI	Density	Lines	Exchange Fill %	Total Lines X Exchange Fill % 0-5 Density	6-100 Density	101-200 Density	201-650 Density	651-850 Density	851-2550 Density	2551-5000 Density	5001-10000 Density	>10001 Density
CFVLFLXADS0	2	4,431	49.64%		2,199							
SGBHFLXARS0	2	1,823	50.49%		920							
LEE FLXARS0	2	875	41.24%		361							
GDRGFLXADS0	2	2,170	53.76%		1,167							
RYHLFLXARS0	2	1,481	52.58%		779							
VLPRFLXADS0	2	287	46.67%		134							
GLDLFLXARS0	2	715	35.11%		251							
GNWDFLXARS0	2	648	34.54%		224							
FTWBFLXCRS0	2	2	57.65%		1							
CRVWFLXADS0	2	2,899	44.44%		1,288							
TLHSFLXCDS0	2	2,078	46.70%		970							
STRKFLXADS0	2	3,339	43.51%		1,453							
TLHSFLXHDS0	2	615	50.87%		313							
MRNNFLXADS0	2	4,193	43.12%		1,808							
CTDLFLXARS0	2	1,315	39.61%		521							
MNTIFLXADS0	2	3,405	50.28%		1,712							
TLHSFLXFDS0	2	3,633	50.32%		1,828							
BAKRFLXADS0	2	2,173	46.84%		1,018							
PNLNFLXARS0	2	1,024	51.32%		525							
TLHSFLXDDS0	2	3,237	51.43%		1,665							
BNFYFLXARS0	2	3,235	44.67%		1,445							
FTWBFLXADS0	2	4	49.50%		2							
FTWBFLXADS0	2	16	49.50%		8							
LWTYFLXARS0	2	1,081	49.26%		533							
ALFRFLXARS0	2	1,449	45.23%		655							
GNVLFLXARS0	2	860	43.87%		377							
CHLKFLXARS0	2	1,045	43.87%		459							
SNDSFLXARS0	2	975	52.60%		513							
PANCFLXARS0	2	990	45.40%		449							
KGLKFLXARS0	2	374	55.25%		207							
TLHSFLXGDS0	2	2,653	50.99%		1,353							
MDSNFLXADS0	2	1,049	50.22%		527							
MALNFLXARS0	2	1,151	59.18%		681							
STMKFLXARS0	2	471	56.50%		266							
SPCPFLXADS0	2	943	61.84%		583							
FRPTFLXARS0	3	1,045	42.87%			447.82						
WSTVFLXARS0	3	401	32.92%			132.08						
SNRSFLXARS0	3	192	48.98%			94.04						

Florida
Cable Fill Factors

CLLI	Density	Lines	Exchange Fill %	Total Lines X Exchange Fill %								
				0-5 Density	6-100 Density	101-200 Density	201-650 Density	651-850 Density	851-2550 Density	2551-5000 Density	5001-10000 Density	>10001 Density
DFSPFLXADS0	3	3,289	42.84%			1,409.10						
CFVLFLXADS0	3	1,895	49.64%			940.71						
SGBHFLXARS0	3	381	50.49%			192.36						
VLPRFLXADS0	3	1,477	46.67%			689.35						
FTWBFLXCRS0	3	297	57.65%			171.24						
CRVWFLXADS0	3	1,956	44.44%			869.04						
TLHSFLXBDS0	3	327	46.98%			153.68						
TLHSFLXCDS0	3	935	46.70%			436.77						
STRKFLXADS0	3	209	43.51%			90.75						
TLHSFLXHDS0	3	386	50.87%			196.59						
MRNNFLXADS0	3	1,406	43.12%			606.22						
MNTIFLXADS0	3	564	50.28%			283.54						
TLHSFLXFDS0	3	1,606	50.32%			808.13						
TLHSFLXDDS0	3	3,570	51.43%			1,835.89						
SNDSFLXARS0	3	832	52.60%			437.86						
TLHSFLXGDS0	3	438	50.99%			223.36						
STMKFLXARS0	3	154	56.50%			86.78						
SNRSFLXARS0	4	760	48.98%				372.02					
DFSPFLXADS0	4	787	42.84%				336.99					
SGBHFLXARS0	4	602	50.49%				303.78					
DESTFLXADS0	4	919	46.30%				425.59					
VLPRFLXADS0	4	3,324	46.67%				1,551.64					
FTWBFLXCRS0	4	1,952	57.65%				1,125.13					
CRVWFLXADS0	4	4,528	44.44%				2,012.11					
TLHSFLXBDS0	4	213	46.98%				100.11					
TLHSFLXCDS0	4	4,632	46.70%				2,162.83					
STRKFLXADS0	4	1,329	43.51%				578.11					
TLHSFLXHDS0	4	2,955	50.87%				1,502.84					
MRNNFLXADS0	4	2,229	43.12%				961.17					
MNTIFLXADS0	4	559	50.28%				281.25					
TLHSFLXFDS0	4	6,123	50.32%				3,080.75					
TLHSFLXDDS0	4	5,460	51.43%				2,807.94					
BNFYFLXARS0	4	676	44.67%				302.17					
FTWBFLXADS0	4	365	49.50%				180.45					
FTWBFLXBDS0	4	541	53.60%				289.77					
TLHSFLXGDS0	4	1,393	50.99%				710.36					
MDSNFLXADS0	4	1,558	50.22%				782.62					
SHLMFLXADS0	4	153	55.82%				85.14					

Florida
Cable Fill Factors

				Total Lines X Exchange Fill %								
CLLI	Density	Lines	Exchange Fill %	0-5 Density	6-100 Density	101-200 Density	201-650 Density	651-850 Density	851-2550 Density	2551-5000 Density	5001-10000 Density	>10001 Density
SNRSFLXARS0	5	826	48.98%					404.65				
SGBHFLXARS0	5	1,274	50.49%					643.05				
DESTFLXADS0	5	775	46.30%					359.06				
VLPRFLXADS0	5	2,215	46.67%					1,033.87				
CRVWFLXADS0	5	2,161	44.44%					960.19				
TLHSFLXBDS0	5	1,732	46.98%					813.67				
TLHSFLXCDS0	5	1,070	46.70%					499.75				
TLHSFLXHDS0	5	287	50.87%					145.80				
TLHSFLXFDS0	5	1,642	50.32%					826.43				
TLHSFLXDDS0	5	1,191	51.43%					612.70				
WSTVFLXARS0	6	6,817	32.92%						2,244.05			
SNRSFLXARS0	6	705	48.98%						345.28			
DFSPFLXADS0	6	1,085	42.84%						464.77			
SGBHFLXARS0	6	535	50.49%						270.36			
DESTFLXADS0	6	1,908	46.30%						883.24			
VLPRFLXADS0	6	5,482	46.67%						2,558.62			
FTWBFLXCRS0	6	2,204	57.65%						1,270.49			
CRVWFLXADS0	6	4,247	44.44%						1,887.11			
TLHSFLXBDS0	6	14,230	46.98%						6,685.35			
TLHSFLXCDS0	6	8,205	46.70%						3,831.62			
STRKFLXADS0	6	2,095	43.51%						911.70			
TLHSFLXHDS0	6	6,025	50.87%						3,064.57			
MRNNFLXADS0	6	2,770	43.12%						1,194.51			
MNTIFLXADS0	6	1,408	50.28%						708.00			
TLHSFLXFDS0	6	5,472	50.32%						2,753.37			
TLHSFLXDDS0	6	15,927	51.43%						8,191.62			
BNFYFLXARS0	6	709	44.67%						316.72			
FTWBFLXADS0	6	6,740	49.50%						3,336.34			
FTWBFLXBDS0	6	11,127	53.60%						5,964.36			
MDSNFLXADS0	6	1,419	50.22%						712.41			
SHLMFLXADS0	6	7,266	55.82%						4,055.58			
SNRSFLXARS0	7	786	48.98%							385.17		
DESTFLXADS0	7	6,877	46.30%							3,184.31		
TLHSFLXBDS0	7	6,368	46.98%							2,991.64		
TLHSFLXCDS0	7	5,464	46.70%							2,551.33		
TLHSFLXFDS0	7	4,231	50.32%							2,129.15		
TLHSFLXADS0	7	3,157	49.04%							1,548.38		
TLHSFLXDDS0	7	10,269	51.43%							5,281.35		

Florida
Cable Fill Factors

CLLI	Density	Lines	Exchange Fill %	Total Lines X Exchange Fill %								
				0-5 Density	6-100 Density	101-200 Density	201-650 Density	651-850 Density	851-2550 Density	2551-5000 Density	5001-10000 Density	>10001 Density
FTWBFLXADS0	7	11,274	49.50%							5,580.15		
FTWBFLXBDS0	7	5,974	53.60%							3,202.33		
SHLMFLXADS0	7	721	55.82%							402.64		
DESTFLXADS0	8	7,083	46.30%								3,279.73	
TLHSFLXCDS0	8	3,148	46.70%								1,469.87	
TLHSFLXADS0	8	10,075	49.04%								4,941.12	
TLHSFLXDDS0	8	740	51.43%								380.80	
FTWBFLXADS0	8	2,490	49.50%								1,232.35	
FTWBFLXBDS0	8	2,397	53.60%								1,284.94	
MDSNFLXADS0	8	706	50.22%								354.59	
SHLMFLXADS0	8	1,287	55.82%								718.14	
DESTFLXADS0	9	2,208	46.30%									1,022.41
TLHSFLXBDS0	9	1,042	46.98%									489.42
TLHSFLXADS0	9	57,872	49.04%									28,381.84
FTWBFLXADS0	9	1,376	49.50%									681.09
				1,794	29,856	10,105	19,953	6,299	51,650	27,256	13,662	30,575
Total Lines in Density Groups				3,816	62,703	21,360	41,055	13,174	106,376	55,122	27,926	62,498
Actual fill				47.0%	47.6%	47.3%	48.6%	47.8%	48.6%	49.4%	48.9%	48.9%
				1	2	3	4	5	6	7	8	9
Trend				47.2%	47.5%	47.7%	48.0%	48.2%	48.5%	48.8%	49.0%	49.3%

Total Lines in Density Groups	191,149.77	Overall
Actual fill	394,030.79	Overall
Trend	48.5%	Overall

Sprint Florida, Inc.

Docket 990649 - TP

Workpapers 10

Switching Inputs

All Switching Inputs are third party proprietary information.

Sprint Florida, Inc.

Docket 990649 - TP

Workpapers 11

Florida - UNE
Interoffice Transport Model Inputs

Equipment Price & Utilization Inputs

Termination Equipment:	Material Cost	Eng. Hours	Install. Hours	$43.09 Eng. Amount	$43.19 Install. Amount	Total Labor
Fiber Tip Cable (Per Fiber)	[redacted]	0.00	0.00	$ -	$ -	$ -
Fiber Patch Panel (Per Fiber)	[redacted]	0.11	0.22	4.79	9.60	14.39
Sonet Terminal Shelf (OC3)	[redacted]	32.0	68.0	1,378.88	2,936.92	4,315.80
DS3 Card	[redacted]	0.0	0.0	-	-	-
DS1 Card	[redacted]	0.0	0.0	-	-	-
Sonet Terminal Shelf (OC12)	[redacted]	41.3	96.7	1,781.05	4,175.03	5,956.09
OC3 Card	[redacted]	0.0	0.0	-	-	-
4 DS3 Card (OC12)	[redacted]	0.0	0.0	-	-	-
Sonet Terminal Shelf (OC48LUC)	[redacted]	50.0	115.0	2,154.50	4,966.85	7,121.35
OC12 Card	[redacted]	0.0	0.0	-	-	-
OC3 Card	[redacted]	0.0	0.0	-	-	-
3 DS3 Card (OC48 LUC)	[redacted]	0.0	0.0	-	-	-
Sonet Terminal Shelf (OC48ALC)	[redacted]	68.0	130.0	2,930.12	5,614.70	8,544.82
OC12 Card	[redacted]	0.0	0.0	-	-	-
OC3 Card	[redacted]	0.0	0.0	-	-	-
4 DS3 Card (OC48 ALC)	[redacted]	0.0	0.0	-	-	-
DSX3 Cross Connect Shelf	[redacted]	8.0	16.0	344.72	691.04	1,035.76
DSX3 Cross Connect Card	[redacted]	0.0	0.0	-	-	-
DSX1 Cross Connect Jack Field	[redacted]	8.0	16.0	344.72	691.04	1,035.76
Channel Bank Shelf	[redacted]	12.0	24.0	517.08	1,036.56	1,553.64
Channel Bank Card	[redacted]	0.0	0.0	-	-	-
Fiber Repeater (OC3)	[redacted]	20	30.00	861.80	1,295.70	2,157.50
Fiber Repeater (OC12)	[redacted]	20	30.00	861.80	1,295.70	2,157.50
Fiber Repeater (OC48LUC)	[redacted]	20	30.00	861.80	1,295.70	2,157.50
Fiber Repeater (OC48ALC)	[redacted]	20	30.00	861.80	1,295.70	2,157.50

Alcatel OC-3 Central Office Terminal (7'-0")
Equipped with 2 DS-3s and 28 DS-1s

Matcode	Configuration P/N	Configuration Description	Qty	Unit Price	Material Price
030464	1603 SMX-COT-01	7 FT frame assembly w/1-RS PDU w frame bus kit			
		(1) 625002-000-008 Fan Panel with Filter			
		(1) 3EM02211AA SLM201 SMX Shelf			
030469	1603 SMX-COM-01	SMX COM-01 includes:			
	600308-393-001	PWR A01 Power Converter	3		
	3AL00124AB	CLK 202 Clock Unit	2		
	3AL00380AG	COA 607 Craft, OW & Alm w/ dual exp mem	1		
	3AL00424AA	CCM 101 Software Programmable OC48 Xconn	2		
020733	3AL00378AB	NEP 402 Network Processor w/ LAN	1		
	3AL00308AA	HIFB01 High Speed OC3 IR 1310nm FC/PC	2		
012270	3EM02991AAAA	HD Coax/Baffle/Fiber Panel	1		
030479	3AL02830ABAC	ADR48 R1.01 Ring Network Software CD ROM	1		
		TOTAL 1603			
030480	1603 SMX-SPR-01	**Spares include the following:**			
	600308-393-001	PWR A01 Power Converter	0.25		
	3AL00124AB	CLK 202 Clock Unit	0.25		
	3AL00380AG	COA 607 Craft, OW & Alm w/ dual exp mem	0.25		
	3AL00424AA	CCM 101 Software Programmable OC48 Xconn	0.25		
005803	3AL00114AB	625611-000-002 DS1 Floating Drop Interface DMI102	0.25		
005802	625611-000-002	3AL00114AB Virtual Group Interface VTG102(4DS-1's/card)	0.25		
421872	3AL00328AA	LIF701 DS3 Interface	0.25		
012288	3AL00290AA	LDR 101 Line Driver/Receiver	0.25		
		Optional Spares to be added	0.25		
	3AL00308AA	HIFB01 High Speed OC3 IR 1310nm FC/PC	0.25		
		TOTAL SPARES			
		DS1 Interface Cards			
005803	3AL00114AB	625611-000-002 DS1 Floating Drop Interface DMI102	2		
005802	625611-000-002	3AL00114AB Virtual Group Interface VTG102(4DS-1's/card)	8		
030799	3EM00932AB	DS1WW 202 DS1 Wire Wrap Panel	2		
		Per DS1 Interface Card (28 DS1 capacity)			
		per DS1			
		DS3/STS1 Interface Cards			
421872	3AL00328AA	LIF701 DS3 Interface	4		
012288	3AL00290AA	LDR 101 Line Driver/Receiver	4		
	3EM02075AA	CIOP 401 DS3/STS1 Input/Output Panel	1		
	601303-540-042	Coax Ribbon Cable Assy w/ 8 BNC, 42"	1		
		DS3 Interface Cards (Terminal equipped for 2 DS3s)			
		per DS3			
		ENGINEERING HOURS	41		
		INSTALLATION HOURS	97		
		per DS1			
		ENGINEERING HOURS	32		
		INSTALLATION HOURS	68		

Redacted

Alcatel OC-12 Central Office Terminal (7'-0")
Equipped with 4 DS-3s/STS1 and 56 DS-1s

Matcode	Configuration P/N.	Configuration Description	Qty	Unit Price	Material Price
030464	1603 SMX-COT-01	7 FT frame assembly w/1-RS PDU w frame bus kit			
		(1) 625002-000-008 Fan Panel with Filter			
		(1) 3EM02211AA SLM201 SMX Shelf			
030469	1603 SMX-COM-01	SMX COM-01 includes:			
	600308-393-001	PWR A01 Power Converter	3		
	3AL00124AB	CLK 202 Clock Unit	2		
	3AL00380AG	COA 607 Craft, OW & Alm w/ dual exp mem	1		
	3AL00424AA	CCM 101 Software Programmable OC48 Xconn	2		
020731	3AL00378AA	NEP 401 Network Processor w/ LAN	1		
020653	3AL00238AC	HIF 603 High Speed OC12 IR 1310nm FC/PC	2		
012270	3EM02991AAAA	HD Coax/Baffle/Fiber Panel	1		
030479	3AL02830ABAC	ADR48 R1.01 Ring Network Software CD ROM	1		
	601303-540-042	Coax Ribbon Cable Assy w/ 8 BNC, 42"	1		
		TOTAL 1603			
030480	1603 SMX-SPR-01	**Spares Include the following:**			
	600308-393-001	PWR A01 Power Converter	0.25		
	3AL00124AB	CLK 202 Clock Unit	0.25		
	3AL00380AG	COA 607 Craft, OW & Alm w/ dual exp mem	0.25		
	3AL00424AA	CCM 101 Software Programmable OC48 Xconn	0.25		
005803	3AL00114AB	625611-000-002 DS1 Floating Drop Interface DMI102	0.25		
005802	625611-000-002	3AL00114AB Virtual Group Interface VTG102(4DS-1's/card)	0.25		
012287	3AL00224AC	LIF502 QUAD DS3/STS1 Interface	0.25		
012288	3AL00290AA	LDR 101 Line Driver /Receiver	0.25		
		Optional Spares to be added			
020653	3AL00238AC	HIF 603 High Speed OC12 IR 1310nm FC/PC	0.25		
		TOTAL SPARES			
		DS1 Interface Cards			
005803	3AL00114AB	625611-000-002 DS1 Floating Drop Interface DMI102	4		
005802	625611-000-002	3AL00114AB Virtual Group Interface VTG102(4DS-1's/card)	15		
030799	3EM00932AB	DS1WW 202 DS1 Wire Wrep Panel	2		
		DS1 Interface Cards (Terminal equipped w/ 56 DS1s)			
		per DS1			
		4 DS3/STS1 Interface Cards			
012287	3AL00224AC	LIF502 QUAD DS3/STS1 Interface	2		
012288	3AL00290AA	LDR 101 Line Driver /Receiver	8		
	3EM02075AA	CIOP 401 DS3/STS1 Input/Output Panel	1		
		4 DS3 Interface Cards (Terminal equipped w/ 4 DS3s)			
		per DS3			
		Drop Optical Interface Cards			
	3AL00xxxAA	Quad OC3/OC12 interface, FC/PC (4 OC3s or OC12s per card)	1		
		OC3/12 Interface Card (Terminal Equipped for 1 OC12 and 2 OC3s)			
		Per OC3			
		ENGINEERING HOURS	41		
		INSTALLATION HOURS	97		

Alcatel OC-48 LE Central Office Terminal (7'-0")
Equipped with 1 OC-12, 2-OC-3s, and 18 DS-3s

Order Code	Configuration P/N	Configuration Description	Qty	Unit Price	Material Price
012258	1648LE-COT-03	**ALCATEL 1648: OC-48 COT BLSR DS3/STS1 MX Trib Shelf**	1		
		Expansion Units Includes:			
		R.o6 4FBLSR LE 7' relay rack w/all shelves and cabling e/w:			
		(4) 3AL48815AA Receive Line Interface			
		(4) 3AL48817AA Transmit Line Interface			
		(1) 3AL48835AA Common Shelf Processor			
		(1) 3AL48836AA Trib Shelf Processor			
		(4) 644-0009-001 Receive Access Module			
		(4) 644-0010-001 Transmit Access Module			
		(2) 644-0013-001 Tributary Transceiver			
		(4) 644-0020-001 Receiver, FC/PC			
		(4) 644-0028-001 Line Shelf Power Supply			
		(3) 644-0030-002 Common Shelf Power Supply			
		(1) 644-0104-002 Ring Controller, Bi-ring			
		(2) 822-0115-001 Synchronizer Card			
		(1) 822-0294-001 USI-LAN Interface			
		(1) 3AL48935ABAA Software, LE BI Ring, 4 fiber R6.01			
		648-0472-025 Cable, 24 Cond. 1 Plug 50 ft	1		
		648-0474-045 Cable, 64 Pin Plug, 50 ft	1		
		694-1986-006 Front Cover common shelf	1		
		694-1986-007 Front Cover Trib Shelf	1		
		622-9478-001 DS3 Switch	2		
		644-0013-001 Tributary Transceiver	2		
		695-2137-002 Front Cover Line shelf	2		
018870	1648-COT-04	**ALCATEL 1648: OC-48 HD Tributary Expansion Shelf**	1		
		Expansion Units Includes:			
		(1) Tributary Shelf			
		(1) Tributary Shelf Processor			
		(2) DS3 Switch			
		(4) Tributary Transceiver			
		(2) Common Shelf Power Supply			
012296		644-0018-001 Transmitter, 1310 NM, FC/PC	4		
		Craft Interface Software			
227488		3AL02487ADAA 1301 NMX Explorer core SW R1.3	1		
023115		3AL68205ADAA 1648 SM APP for 1301 NM R6.02	1		
		ALCATEL 1648: OC-48 Common Spares			
		Long Reach Optics Includes:			
012343	1648-SPR-01	(1-Set) 1648 OC-48 Common Equip. Spares	0.25		
012296		644-0018-001 Transmitter, 1310 NM, FC/PC	0.25		
019523		3AL48031AK OC-12 Interface, FC/PC	0.25		
012306		3AL48029AF OC-3 Short Reach Interface	0.25		
421948		644-0081-001 DS3/STS-2 Interface (3 DS-3 per module)	0.25		
		Terminal Material Costs			
		OC-12 Interface Card			
019523		3AL48031AK OC-12 Interface, FC/PC	2		
		per OC12 (Terminal equipped with 1 OC12)			
		OC-3 Interface Card			
012306		3AL48029AF OC-3 Short Reach Interface	4		
		per OC3 (Terminal equipped w/ 2 OC3s)			
		3 DS3 Interface Card			
421948		644-0081-001 DS3/STS-2 Interface (3 DS-3 per module)	8		
		per card (3 DS3s) (Terminal equipped w/ 18 DS3s)			
		per DS3			
		TOTAL MATERIAL			
		ENGINEERING HOURS	68		
		INSTALLATION HOURS	130		

Lucent FT-2000 (OC-48) Ring Terminal
Equipped with 1 OC-12, 2 OC-3s and 18 DS-3s

Order Code	Configuration	Configuration Description	Qty	Unit Price	Material Price
		Fiber Terminal Shelf (OC48)			
		FT2000 OC-48 Fiber Ring Bay	1		
		Optic Transmitter (Inter Rch)	2		
		Optic RCVR	2		
		Timing Generator	2		
		SYS Controller	1		
		Line Controller	1		
		System Memory	1		
		OH CTL	2		
		OE CTL	1		
		LS PROT SW	2		
		2-Fiber Ring SFTW	1		
		Spares			
		Optic Transmitter (inter Rch)	0 25		
		Optic RCVR	0 25		
		Timing Generator	0.25		
		SYS Controller	0.25		
		Line Controller	0.25		
		System Memory	0.25		
		OH CTL	0.25		
		OE CTL	0.25		
		LS PROT SW	0.25		
		OC-12 OPT LS CARD	0.25		
		OC-3 OPT LS CARD	0.25		
		(3) DS3 Triple DS3 CP	0 25		
		Terminal Material Costs			
		OC-12 Interface			
		OC-12 OPT LS CARD	1		
		per OC12			
		OC-3 OPT LS CARD	2		
		per OC3			
		DS3 Interface			
		(3) DS3 Triple DS3 CP	6		
		per card (3 DS3s)			
		TOTAL MATERIAL			
		ENGINEERING HOURS	**50**		
		INSTALLATION HOURS	**115**		

Redacted

Alcatel OC-3 Regenerator (Shelf)

Matcode	Configuration P/N.	Configuration Description	Qty	Unit Price	Material Price
014130	625640-000-001	**1603/12 SM Shelf, Shared Power SP101**	1		
014130	625640-000-001	**ALCATEL 1603/12: OC-3 Central Office Terminal (Less Shelf)**			
		7'x 23" Unequal Flange Frame Assembly	.33		
		Fuse & Alarm Panel GMT (-48V) Filtered Fuse Panel	.33		
		Power,Grd,and Alm cable assy.	.33		
		***Common units not Included.**			
005805		625636-000-001 OC3 Heat Baffle w/fiber storage (2 rack spaces)	1		
012273		625052-000-004 Fan Panel with Filter	.33		
025015	1603/12-COM-02-VSC	**OC-3 Common Cards Long Reach Optics**			
		3AL00124AB Clock, Plug in CLK202 R3.1	2		
		3AL02229ACAB HIF503	2		
		600308-393-001 Power Supply PWRA01	3		
		3AL00380AC Craft,Orderwire and Alarm Plug In Unit COA 603	1		
		3AL02726AEAA SW7.04	1		
		3AL00262AB VSCC302	2		
012288		3AL00290AA DS-3/STS-1 Line Driver	4		
024362	1603/12-SPR-02	**ALCATEL 1603/12: OC-3 Common Repeater Spares**	1		
		Long Reach Optics Includes:			
		(1-Set) 1603/12 OC-3 Common Equip. Spares			
		NETWORK ELEMENT PROCESSOR ONE REQUIRED PER SHELF			
020733		3AL00378AB Network Element Processor NEP 402 (LAN)	1		
		Craft Interface Software			
027488		3AL02487ADAA 1301 NMX Explorer Core SW R1.03 Diskette	1		
022997		3AL009410ABAA 1603/12 SM APP for 1301NM R7.01	1		
		TOTAL MATERIAL			
		ENGINEERING HOURS	**20**		
		INSTALLATION HOURS	**30**		

Redacted

Alcatel OC-12 Regenerator (Shelf)

Matcode	Configuration P/N.	Configuration Description	Qty	Unit Price	Material Price
01430		**1603/12 SM Shelf, Shared Power SP101**	1		
		Central Office Bay Configuration			
014130		**ALCATEL 1603/12: OC-3 Central Office Terminal**			
		7'x 23" Unequal Flange Frame Assembly	.33		
		Fuse & Alarm Panel GMT (-48V) Filtered Fuse Panel	.33		
		Power,Grd,and Alm cable assy.	.33		
		***Common units not Included.**			
018576		CA2-0100-T35-000-1 DSX-1 Conn. Cable 100' Kit (2 cbls Included)	0		
014175		WIR - 0735-100 FT - CO6-2 DS-3 735A Six Conductor Cable	0		
411155		UPL220-026 Straight BNC Connectors	0		
014180		TRO-3435-KIT-000-2 Trompler 735A BNC Tool Kit	0		
012270		625637-000-001 OC12 Heat Baffle w/Coax Panel/Fiber Storage	1		
005796		602414-536-001 DS1 connectorized I/O panel	0		
012273		625052-000-004 Fan Panel with Filter	0		
020725	1603/12-COM-04	**OC-12 Common Cards Long Reach Optics**			
		3AL00124AB Clock, Plug in CLK202 R3.1	2		
		3AL00316AA HIF901	2		
		600308-393-001 Power Supply PWRA01	3		
		3AL00380AC Craft,Orderwire and Alarm Plug In Unit COA 603	1		
		3AL02726AEAA SW 7.04	1		
		3AL00262AB VSCC302	2		
020567	1603/12-SPR-04	**ALCATEL 1603/12: OC-12 Common Long Reach Spares**	1		
		Long Reach Optics Includes:			
		(1-Set) 1603/12 OC-12 Common Equip. Spares			
		NETWORK ELEMENT PROCESSOR ONE REQUIRED PER SHELF			
020733		3AL00378AB Network Element Processor NEP 402 (LAN)	1		
		Craft Interface Software			
027488		3AL02487ADAA 1301 NMX Explorer Core SW R1.3	1		
022997		3AL009410ABAA 1603/12 SM APP for 1301NM R7.01	1		
		TOTAL MATERIAL			
		ENGINEERING HOURS	20		
		INSTALLATION HOURS	30		

Redacted

Alcatel OC-48 Regenerator (Bay)

Order Code	Configuration P/N	Configuration Description	Qty	Unit Price	Material Price
012258	1648-COT-01	**ALCATEL 1648: SM BI Ring MX Trib**	1		
		Expansion Units Includes:			
		First Expansion Bay with 1 Trib Shelf			
		(1) Trib Shelf Processor			
		(2) DS3 Switch			
		(4) Tributary Transceiver			
		(2) Common Shelf Power Supply			
018869	1648-COT-05	**ALCATEL 1648: OC-48 HD Tributary Expansion Shelf**	0		
		Expansion Units Includes:			
		(1) Tributary Shell			
		(1) Tributary Shelf Processor			
		(2) DS3 Switch			
		(4) Tributary Transceiver			
		(2) Common Shell Power Supply			
025437		**SRC, HD Repeater Shelf**	0		
012260	1648-COM-01	**OC-48 Common Card Units**	1		
		3AL48815AA Receive Line Interface	0		
		3AL48817AA Transmit Line Interface	0		
		3AL48835AA Common Shelf Processor	0		
		3AL48836AA Trib Shelf Processor	0		
		622-9478-001 DS3 Switch	0		
		644-0009-001 Receive Access Module	0		
		644-0010-001 Transmit Access Module	0		
		644-0013-001 Tributary Transceiver	0		
		644-0020-001 Receiver, FC/PC	0		
		644-0129-001 Power Supply, HD Repeater	0		
		644-0030-002 Common Shelf Power Supply	0		
		644-0104-002 Ring Controller, Bi-ring	0		
		822-0115-001 Synchronizer Card	0		
		822-0294-001 USI-LAN Interface	0		
		694-7728-034 Software, SM Repeater, 4 fiber R5.03	0		
012293		622-9611-001 Parallel Alarms on 1648 SM	0		
020524		3AL65420AA XLAN X.25 Gateway Interface	0		
027315		3AL48936ABAA XLAN Software R5.03	0		
421948		644-0081-001 DS3/STS-2 Interface (3 DS-3 per module)	0		
012296		644-0018-001 Transmitter, 1310 NM, FC/PC	4		
012297		644-0018-002 Optical Transmitter, 1550 NM FC	0		
012298		644-0018-003 Optical Transmitter, 1538 NM FC	0		
012299		644-0018-004 Optical Transmittar, 1558 NM FC	0		
012300		644-0018-005 Optical Transmitter, 1550 NM HP 120	0		
012301		644-0018-006 Optical Transmitter, 1538 NM HP 120	0		
012302		644-0018-007 Optical Transmitter, 1558 NM HP 120	0		
012303		644-0018-008 Optical Transmitter, 1550 NM HP 160	0		
012304		644-0018-009 Optical Transmitter, 1538 NM HP 160	0		
012305		644-0018-010 Optical Transmitter, 1558 NM HP 160	0		
012306		3AL48029AF OC-3 Short Reach Interface	0		
019523		3AL48031AK OC-12 Interface, FC/PC	0		
		Craft Interface Software			
027488		3AL02487ADAA 1301 NMX Explorer core SW R1.3 Diskette	1		
023115		3AL68205ADAA 1648 SM APP for 1301 NM R6.22	1		
012343	1648-SPR-01	**ALCATEL 1648: OC-48 Common Spares**	0		
		NETWORK ELEMENT PROCESSOR ONE REQUIRED PER SHELF			
020733		3AL00378AB Network Element Processor NEP 402 (LAN)	0		
		Craft Interface Software			
027488		3AL02487ADAA 1301 NMX Explorer Core SW R1.3 Diskette	0		
022997		3AL009410ABAA 1603/12 SM APP for 1301NM R7.01	0		
		TOTAL MATERIAL			
		ENGINEERING HOURS	20		
		INSTALLATION HOURS	30		

Redacted

Lucent FT-2000 (OC-48) Regenerator

Order Code	Configuration P/N	Configuration Description	Qty	Unit Price	Material Price
		Fiber Terminal Shelf (OC48)			
		Dual bay with one OC-48 System	1		
		TG3 (DS1) Cp-LAA18	2		
		System Controller - LAA238	1		
		System Memory 4 Mbyte - LAA25	1		
		Line Controller (4Mg) A/D & ring - LAA28	1		
		Overhead Controller - LAA21	2		
		A/D ring Rcv - 839B5 Rel 7.0 (STS-1)	2		
		1.3um Txr 23db A/D & rings 53Km - 739B5 Rel 7.0 (STS-1)	2		
		OC-12 Interface			
		OC-12 OPT LS CARD	0		
		OC3 Interface			
		OC-3 OPT LS CARD	0		
		DS3 Interface			
		(3) DS3 Triple DS3 CP	0		
		Spares			
		Optic Transmitter (Inter Rch)	0		
		Optic RCVR	0		
		Timing Generator	0		
		SYS Controller	0		
		Line Controller	0		
		System Memory	0		
		OH CTL	0		
		OE CTL	0		
		LS PROT SW	0		
		OC-12 OPT LS CARD	0		
		OC-3 OPT LS CARD	0		
		(3) DS3 Triple DS3 CP	0		
		Software			
		Rel. 7.2 Disk & Sftwr Documentation	1		
		Rel. 7.2 App RTU	1		
		Rel 7.2 OS RTU	1		
		Release 7.2 User Service Manual	1		
		TOTAL MATERIAL			
		ENGINEERING HOURS	20		
		INSTALLATION HOURS	30		

Redacted

Seicor Fiber Patch Panel

Item	Configuration P/N.	Configuration Description	Qty	Unit Price	Material Price
968311	ACH-72-11	72 Fiber Angled Panel Housing equipped with:	1		
		72 FC Sleeves intalled			
		TOTAL MATERIAL			
		70% Utilization			
		Material per fiber			
		ENGINEERING HOURS	8.00		
		per fiber	0.11		
		INSTALLATION HOURS	16		
		per fiber	0.22		

Seicor Fiber Tip Cable

Mat Code	Configuration P/N.	Configuration Description	Qty	Unit Price	Material Price
964081	545401R3131050M	Ultra FCPC-to-FCPC 50 Meter	1		
		TOTAL MATERIAL			
		ENGINEERING HOURS	**0.00**		
		INSTALLATION HOURS	**0.00**		

**Note: Fiber tip cables can be ordered in a variety of lengths.
This jumper represents the median cost of the family of cables.**

Telect DSX-3 Cross Connect Chassis & Modules

Item	Configuration P/N.	Configuration Description	Qty	Unit Price	Material Price
966134	010-0000-0501	DSX-3 80/85 Chassis, wired for 16 Modules, 19"x7"	1		
		Material Cost DSX-3 Cross Connect Shelf (16 DS3 capacity equal to 448 DS1s)			
965979	010-8601-0401	DSX-3/4 Module, MW, Front LED, ADC Compatible	1		
966171	043-0922-012	12FT Mini-WECO to Mini-WECO Coaxial Patch Cord	1		
		Material Cost for Cross Connedct Card (one DS3 capacity to 28 DS1s)			
		ENGINEERING HOURS	8		
		INSTALLATION HOURS	16		

Notes: **Material & engineering hours applied to Cross Connect Shelf**
No additional engineering/installation for individual cards

Telect DSX-1 Cross Connect Chassis

Item	Configuration P/N.	Configuration Description	Qty	Unit Price	Material Price
965974	010-4084-4011	DSX-WW1C, 4000 Series, 23"x7" 84-Ckt w/21 DSX-1/1C, Chassis Rear Tie Rings	1		
		TOTAL MATERIAL (84 DS1 capaciy)			
		ENGINEERING HOURS	8		
		INSTALLATION HOURS	16		

Adtran Intelligent D4 Channel Bank

Item	Configuration P/N.	Configuration Description	Qty	Unit Price	Material Price
520225	4150ACT2300L4	Intelligent P.M. ACT 2300 Channel Bank System equipped w	1		
520251	1150052L1	ACT 2300 Power Supply Unit (PSU)	2		
520248	1150055L2	ACT 2300 Bank Controller Unit (BCU with PAM)	1		
5200249	1150070L1	ACT 2300 Line Interface Unit (LIU)	1		
		DSX-WW1C, 4000 Series, 23"x7" 84 Ckt w/21 DSX-1/1C	1		
		Switchboard Cable 100 pr./100 ft	1		
		Relay Rack	1		
		Fuse Panel	1		
		Common Spares:			
520251	1150052L1	ACT 2300 Power Supply Unit (PSU)	0.167		
520248	1150055L2	ACT 2300 Bank Controller Unit (BCU with PAM)	0.167		
5200249	1150070L1	ACT 2300 Line Interface Unit (LIU)	0.167		
		Channel Bank Shelf Material Cost (1 DS1 capacity)			
		Channel Units[1]:			
022966	AWX377G1	D4 Channel Unit (Generic)	1		
		Material Cost per Card (.0417 DS1 capacity) 1			
		ENGINEERING HOURS	**12**		
		INSTALLATION HOURS	**24**		

Note: **There are a variety of actual Channel Units that can be used with this system.**
Individual Channel Unit prices vary from

Material & engineering hours applied to Channel Bank Shelf
No additional engineering/installation for individual cards

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Transport - Mileage Equipment / Installation and Sheath

A	B	C	D B * C
	Cost per Glass Foot	Feet per Mile	Material Costs
Mileage Equipment			
Aerial Fiber (per fiber)	0.0190	5,280	100.32
Underground Fiber (per fiber)	0.0202	5,280	106.66
Buried Fiber (per fiber)	0.0226	5,280	119.33

A	B	C	D	E	F	G = ((B *D)-(C*D*E))/F	H	I = H*D/F
	Average Cost per Foot	Cost per Glass Foot	Feet per Mile	# of Fibers per Cable	# of System Fibers	Material Costs	Labor Rate per Foot	Engineering and Installation Labor
Installation & Sheath (OC3, OC12, & OC48 Lucent)								
Aerial Fiber (per fiber)	0.99	0.0190	5,280	36	2	807.84	1.62	4276.80
Underground Fiber (per fiber)	1.06	0.0202	5,280	36	2	878.59	3.13	8263.20
Buried Fiber (per fiber)	1.06	0.0226	5,280	36	2	650.50	0.90	2376.00
Installation & Sheath (OC48 Alcatel)								
Aerial Fiber (per fiber)	0.99	0.0190	5,280	36	4	807.84	1.62	2138.40
Underground Fiber (per fiber)	1.06	0.0202	5,280	36	4	878.59	3.13	4131.60
Buried Fiber (per fiber)	1.06	0.0226	5,280	36	4	650.50	0.90	1188.00

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Sprint

QUOTE NUMBER: SNS 0366

Due to transfer pricing, prices quoted are the cost of the material on that day. Prices cannot be held firm, unless negotiated firm pricing through the manufacturer. The actual price you will be invoiced is the cost of the material the day it is shipped.

ENGINEER:
VOICE NUMBER:
FAX NUMBER:
DATE: *April 06, 2000 12:00 AM*

QTY	UNITS	ITEM DESCRIPTION	ITEM MFGR	MFGR CODE	MFGR PART NO	SNS MATCODE	UNIT COST	EXTENDED COST	COMMENTS
1	EA	RACK 7INX23FT UNEQUAL ZINC/GOLD CHROMATE	NEWTON	0476	0041020110	025273			Input reflects average of threa Relay Racks
1	EA	RELAY RACK SIESMIC ZINC 7FT X 23IN	NEWTON	0476	0046040110	024957			
1	EA	UF EQUIP RACK 7FT CLOSED DUCT SIDE	NEWTON	0476	0040960131	000160			
1	EA	MODULE M13 28 DS1S USED W/EDGELINK 100	TELCO	0284	CCA420G1	530323			STOCKED
1	EA	ACT2300 PAM SYSTEM W/DUAL PSU	ADTRAN	4114	4150ACT2300L4	520255			STOCKED
1	EA	ACT 1900/2300 LIU	ADTRAN	4114	1150070L1	520249			STOCKED
1	EA	ACT 1900/2300 BCU W/PAM	ADTRAN	4114	1150055L2	520248			STOCKED
1	EA	ACT 1900/2300 PSU	ADTRAN	4114	1150052L1	520251			STOCKED
1,000	FT	POWER WIRE 1/0 AWG HYPALON BRAID GY	AIW	4926	25503	512455			Reflects 100 Ft.
1	EA	DS-3 735A SNGL CONN COAX CBL 100FT	TSI	1443	WIR-0100-SPT-C01-2	023152			STOCKED
1	EA	RIGHT ANGLE CONNECTORS	TROMPETER	1188	UPLR220-026	411156			STOCKED
1	EA	STRAIGHT CONNECTORS	TROMPETER	1188	UPL220-026	411155			STOCKED
1	EA	DSX-1 CONN CBL SET 100FT	TELECT	0217	928-1104-0001-100	303333			STOCKED
1	EA	FUSE PANEL 20/20 -48V	TELECT	0217	009-0006-1002				
1,000	FT	SB 100P24 R2500 SWBD CABLE CMR	PRESTOLITE	4911	T0024H0-GY05	512708			Reflects 100 Ft.

Redacted

SPRINT STANDARDS

DIGITAL SIGNAL CROSS – CONNECT / DSX-1
TELECT (0217)

CONNECTORIZED
022807
010-0128-0115
28-Circuit DSX-1 Connectorized

*****

FULLY CONFIGURED
965974
010-4084-4011
DSX-WW1C, 4000 Series, 23"x7"
84-Ckt w/21 DSX-1/1c, Chassis,
Rear Tie Rings.
*****

DIGITAL SIGNAL CROSS – CONNECT / DSX-3
TELECT (0217)

965558
010-0000-1601
DS-3 80/85 CHS, 20 MOD, 23"x6"
T3MYABLFAA
*****

965661
010-8511-0401
DSX-3, 8500 MOD, RXC, SW, BNC
T3CXADCIAA
*****

Asynchronous M13 Equipment
TELCO SYSTEMS (0284)

022964
AXX239G4
M13-28 T1's Protected NEBS Certified
*****

CHANNEL UNITS

535288
13532EM
2 wire voice channel unit
*****

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POWER AND COMMON RATIOS
DERIVED FROM 1999 ARMIS REPORTS

SACS Ln	3355	2874+2876	2878		
STUDY AREA	**COE INCLUDING P & C**	**POWER**	**COMMON**	**RATIO P&C/ COE INC. P&C (b+c)/a**	**RATIO P&C/ COE EX. P&C (b+c)/(a-b-c)**
	a	**b**	**c**	**d**	**e**
UCFL	1,615,563,156	54,176,900	39,294,202	5.79%	6.14%

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TRANSPORT INPUTS (provided by Network Evolution Planning)				
Termination Equipment	Non-Ring Specific Utilization Values*			Methodology & Justifications
	low	typical	high	
Fiber Tip Cable (Per Fiber)	0.00	1.00	1.00	On a per fiber basis, tip cable is either supporting active SONET traffic or not. When deployed, it will be fully utilized at turn-up. The utilization of tip cable is independent of the bandwidth it supports.
Fiber Patch Panel (Per Fiber)	0.00	1.00	1.00	On a per fiber basis, the fiber patch panel connection is either supporting active SONET traffic or not. It is also fully utilized at turn-up. The utilization of this connection is independent of the bandwidth it supports.
Fiber Tip Cable (Per Fiber) OC48 ALC	0.00	1.00	1.00	On a per fiber basis, tip cable is either supporting active SONET traffic or not. When deployed, it will be fully utilized at turn-up. The utilization of tip cable is independent of the bandwidth it supports.
Fiber Patch Panel (Per Fiber) OC48 ALC	0.00	1.00	1.00	On a per fiber basis, the fiber patch panel connection is either supporting active SONET traffic or not. It is also fully utilized at turn-up. The utilization of this connection is independent of the bandwidth it supports.
Sonet Terminal Shelf (OC3)	0.33	Calc or 65%	0.85	An OC-3 Shelf can support from 1 to 3 DS-3s or from 1 to 84 VT 1.5s in increments of 4 DS-1s or a combination.
DS 3 Card	0.00	0.90	1.00	An individual DS-3 card used in 1603/12 terminal can support only one DS-3. These cards are not costly so it is likely that one may be ordered in anticipation of a future need.
DS 1 Card	0.25	0.90	1.00	An individual DS-1 card used in 1603/12 terminal can support from one to four DS-1s. These cards are not costly so it is likely that a few may be purchased in anticipation of future needs.
Sonet Terminal Shelf (OC12)	0.25	Calc	0.85	An OC-12 Shelf can support from 1 to 4 OC-3s, from 1 to 12 DS-3s, from 1 to 336 VT 1.5s or a combination.
OC3 Card	0.00	1.00	1.00	An individual OC-3 card used in 1612 terminal can support only one OC-3. This card is costly and will not likely be purchased without an immediate need.
DS 3 Quad Card Set (OC12)	0.50	0.75	1.00	A DS-3 card set can support from 1 to 4 DS-3s.
Sonet Terminal Shelf (OC48 Lucent) - 2 fiber	0.17	Calc	0.85	An OC-48 Shelf can support from 1 to 2 OC-12s, from 1 to 6 OC-3s, from 1 to 24 DS-3s, from 1-672 VT 1.5s or a combination.
O C 12 Card	0.00	1.00	1.00	An individual OC-12 card used in 1648 terminal can support only one OC-12. This card is very costly and will not likely be purchased without an immediate need.
O C 3 Card	0.00	1.00	1.00	An individual OC-3 card used in 1612 terminal can support only one OC-3. This card is costly and will not likely be purchased without an immediate need.
3 D S 3 Card (OC48 LUC)	0.33	0.90	1.00	A 3 DS-3 card can support from 1 to 3 DS-3s. Use high value for OC-48 offices and typical value for OC-3/OC-12 offices.
Sonet Terminal Shelf (OC48 Alcatel) - 4 fiber	0.25	Calc	0.85	An OC-48 Shelf can support from 1 to 4 OC-12s, from 1 to 12 OC-3s, from 1 to 48 DS-3s, from 1-1,344 VT 1.5s or a combination.
O C 12 Card	0.00	1.00	1.00	An individual OC-12 card used in 1648 terminal can support only one OC-12. This card is very costly and will not likely be purchased without an immediate need.
O C 3 Card	0.00	1.00	1.00	An individual OC-3 card used in 1612 terminal can support only one OC-3. This card is costly and will not likely be purchased without an immediate need.
3 D S 3 Card (OC48 ALC)	0.33	0.90	1.00	A 3 DS-3 card can support from 1 to 3 DS-3s. Use high value for OC-48 offices and typical value for OC-3/OC-12 offices.
Sonet Terminal Shelf (OC48 Alcatel) - 2 fiber	0.17	Calc	0.85	An OC-48 Shelf can support from 1 to 2 OC-12s, from 1 to 6 OC-3s, from 1 to 24 DS-3s, from 1-672 VT 1.5s or a combination.
O C 3 Card	0.00	1.00	1.00	An individual OC-3 card used in 1612 terminal can support only one OC-3. This card is costly and will not likely be purchased without an immediate need.
3 D S 3 Card (OC48 ALC)	0.33	0.65	0.90	A 3 DS-3 card can support from 1 to 3 DS-3s. Use high value for OC-48 offices and typical value for OC-3/OC-12 offices.
		OC3/ OC12	OC48	
DSX3 Cross Connect Shelf	0.08	0.60	0.86	A DSX-3 Cross Connect Shelf supports from 12 to 16 DS3-s. Use high value where mutiple DSX-3 shelves are deployed and typical values where only one or two shelves are deployed.
DSX3 Cross Connect Card	0.10	0.90	1.00	A DSX-3 Cross Connect Module (card) supports only one DS-3. Use high value where mutiple DSX-3 shelves are deployed and typical values where only one or two shelves are deployed.
DSX1 Cross Connect Jack Field	0.10	0.60	0.90	A DSX-1 Manual Cross Connect can terminate from 1 to 84 DS-1s. Use high value for OC-48 offices and typical value for OC-3/OC-12 offices.
Channel Bank Shelf	0.13	0.67	0.92	A D4 Channel bank can support from 1 to 24 DS-0 circuits. Use high value for OC-48 offices and typical value for OC-3/OC-12 offices.
Channel Bank Card	0.00	1.00	1.00	An individual D4 channel card can support only one circuit. Due to the variety of different cards that support different types of DS-0 circuits, it is unlikely that these cards will be provided in advance of need.
Fiber Repeater (OC3)	Calc	Calc	Calc	Regenerators are dictated by the optical design of the system (e.g., the fiber span is too long). When deployed, it is fully utilized at turn-up. This utilization is independent of the system bandwidth.
Fiber Repeater (OC12)	Calc	Calc	Calc	
Fiber Repeater (OC48LUC)	Calc	Calc	Calc	
Fiber Repeater (OC48ALC)	Calc	Calc	Calc	