

SAMPLE COUNTY DATA CENTER PROJECT BUDGET

Item No.	Version 1.3 Description	Qty	Estimated Unit Cost	Estimated Extended Cost	Notes
1.0	<u>SECTION I - DESIGN AND ENGINEERING FEES</u>				
1.0.1	Project Management and Administration Costs			\$25,000	
1.0.2	<u>Architectural and Space Planning</u>				
1.0.2.1	Design Development				
1.0.2.1.1	Lead Architect	500	\$130.0	\$65,000	
1.0.2.1.2	Architect	600	\$115.0	\$69,000	
1.0.2.1.3	CAD Support	400	\$75.0	\$30,000	
1.0.2.2	Bid & Negotiation	120	\$120.0	\$14,400	
1.0.2.3	Construction Administration	<u>700</u>	\$120.0	<u>\$84,000</u>	
	Total Architectural and Space Planning	2320		\$262,400	
1.0.3	<u>Electrical and UPS Design</u>				
1.0.3.1	Lead Electrical Engineer	400	\$120.0	\$48,000	
1.0.3.2	Other Engineer	500	\$80.0	\$40,000	
1.0.3.3	CAD Support	300	\$80.0	\$24,000	
1.0.3.4	Construction Administration	<u>250</u>	\$120.0	<u>\$30,000</u>	
	Total Electrical Engineering Design	1450		\$142,000	
1.0.4	Plumbing and Mechanical Design	200	\$140.0	\$28,000	
1.0.5	Fire Supression Design	200	\$140.0	\$28,000	
1.0.6	Fire Alarm Design	200	\$120.0	\$24,000	
1.0.7	Security/Access Control Design	160	\$120.0	\$19,200	
1.0.8	Voice and Data Cabling Design	160	\$120.0	\$19,200	
1.0.9	Network Design	600	\$130.0	\$78,000	
		1520		\$196,400	
	Sub Total Section I -Design and Engineering Costs			\$625,800	

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2.0	<u>SECTION II - CONSTRUCTION COSTS</u>				
2.1	Demolition				
2.1.1					
	Sub Total: Demolition			\$0	
2.2	Interior Construction				
2.2.1	Rough Carpentry for Computer Room Areas	0			
2.2.2	Perimeter Furring	2,500	\$4.5	\$11,250	
2.2.3	Drywall for Computer Room Areas (1 hr. Rated Walls)	6,000	\$8.0	\$48,000	
2.2.4	Drywall for Computer Room Areas (2 hr. Rated Walls)	18,000	\$10.0	\$180,000	
2.2.5	Vapor Barrier	18,000	\$0.6	\$10,800	
2.2.6	<u>Raised Floor (1,250 lb Floor)</u>				
2.2.6.1	18" Access Floor with Zone 4 Seismic Preparation	12,700	\$20.0	\$254,000	12,700 Square Feet
2.2.6.2	Sealing of Floor	12,700	\$2.5	\$31,750	
2.2.6.3	Two Cleanings of Floor	12,700	\$0.5	\$6,350	
2.2.7	<u>Raised Floor (1,500 lb Floor)</u>				
2.2.7.1	18" Access Floor with Zone 4 Seismic Preparation	2,300	\$22.0	\$50,600	2,300 Square Feet
2.2.7.2	Sealing of Floor	2,300	\$2.5	\$5,750	
2.2.7.3	Two Cleanings of Floor	2,300	\$0.5	\$1,150	
2.2.7.3	Tile Cuts	120	\$35.0	\$4,200	
2.2.8	Acoustical Ceiling	15,000	\$4.0	\$60,000	
2.2.9	Doors/Frame/Hardware			\$25,000	3 large doors w/ security. 4 other doors w/ security
2.2.10	Painting/Wall Covering	15,000	\$2.0	\$30,000	
2.2.11	Glass and Glazing				
2.2.12	Bathrooms				
2.2.13	Ceramic Tile				
2.2.14	Carpeting/Misc. Floor Covering	600	\$21.0	\$12,600	
2.2.15	Carpet Clean/Static Treat	600	\$1.0	\$600	
2.2.16	Other				
	Sub Total: Interior Construction			\$732,050	
2.3	Plumbing/Process Piping				
2.3.1	Plumbing/Process Piping	15,000	\$2.6	\$39,000	
	Sub Total: Plumbing/Process Piping			\$39,000	
2.4	Fire Protection				
2.4.1	Pre-Action, Dry Pendant	15,000	\$9.0	\$135,000	
2.4.2	FM-200 Fire Suppression System (Underfloor Only)	15,000	\$9.0	\$135,000	
	Sub Total: Fire Protection			\$270,000	

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2.5	Mechanical				
2.5.1	Chilled water system, CRUs, HVAC, other	15,000	\$65.0	\$975,000	Some systems on rooftop and in equipment yard
	Sub Total: Mechanical			\$975,000	
2.6	Electrical				
2.6.1	Data Center (generator, switchgear, ATS, main panels, PDUs and PDU Cables, UPS/battery)	15,000	\$180.0	\$2,700,000	Some systems on rooftop and in equipment yard
2.6.2	Voice and Data Cabling (Data Center)	15,000	\$7.5	\$112,500	
2.6.3	Voice and Data Cabling (Office Area)	30,000	\$5.0	\$150,000	
2.6.4	Security Cabinet and Installation			\$20,000	
	Sub Total: Electrical			\$2,982,500	
2.7	Security				
2.7.1	Security for IT spaces			\$60,000	
	Sub Total: Security			\$60,000	
2.8	Environmental Monitoring				
2.8.1	Monitoring system for environmental systems			\$80,000	
	Sub Total: Environmental Monitoring			\$80,000	
2.9	Command Console				
2.9.1	32-position production and network command console			\$150,000	
	Sub Total: Command Console			\$150,000	
	SUB-TOTAL CONSTRUCTION COSTS			\$5,288,550	
3.0	Fees and Conditions				
3.1	Fees and Permits @ 0.5%			\$26,443	
3.2	General Conditions @ 1.5%			\$79,328	
3.3	Liability Insurance @ 2.0%			\$105,771	
3.4	Performance and Payment Bonds @ 1.5%			\$79,328	
3.5	Construction Management Fee @ 6.0%			\$317,313	
3.6	Overhead and Profit @ 3.0%			\$158,657	
	SUB TOTAL FEES AND CONDITIONS			\$766,840	
	Sub-Total Section II - Construction Costs			\$6,055,390	

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3.0	<u>SECTION III - NETWORK EQUIPMENT COSTS</u>				
3.1	Network Equipment and Data Circuits				
3.1.1	19" Server Cabinets w/power strips	27	\$6,000	\$162,000	
3.1.2	Network Cabinets w/power strips	13	\$5,000	\$65,000	
3.1.3	KVM Switches for server cabinets	27	\$800	\$21,600	
3.1.4	2U CRTs and keyboards for server cabinets	27	\$1,200	\$32,400	
3.1.5	Cisco 7500 Router	5	\$70,000	\$350,000	
3.1.6	Switches	various	\$500,000	\$500,000	
3.1.7	Cisco Firewall	1	\$50,000	\$50,000	
3.1.8	Other Firewall Systems	3	\$40,000	\$120,000	
3.1.9	VPN Equipment			\$100,000	
3.1.10	Costs for installation and testing of network hardware			\$10,000	
3.1.11	Console Terminal Servers	4	\$5,000	\$20,000	
3.1.12	Modems (racks, rackmounts, standalones)	70	\$1,000	\$70,000	
3.1.13	DSUs (racks, rackmounts, standalones)	30	\$1,000	\$30,000	
3.1.14	Adtran mux equipment	1	\$20,000	\$20,000	
3.1.15	Patch Panels (5-RS232, 2-V35, 1-T1, 4-Coax)	1	\$12,000	\$12,000	
3.1.16	RS232, V.35, T1 and Coax patch panels	18	\$2,000	\$36,000	
3.1.17	Cabinet rack-mounted slider equipment	100	\$250	\$25,000	
3.1.18	All specialized Telecom/Network patch panels & cords	1	\$40,000	\$40,000	
3.1.19	Main Distribution Frame & accessories	1	\$12,000	\$12,000	
	Sub Total Network Hardware			\$1,676,000	
3.1.20	Contingency (7%) for unanticipated items			\$117,320	
3.1.21	Estimated Tax @ 8.25%			\$138,270	
3.1.22	Estimated Freight @ 9.0%			\$150,840.00	
	Sub Total Tax and Freight			\$289,110	
3.2	Network Consultants				
3.2.1	Network Consulting and Project Management	600	\$135.0	\$81,000	
	Sub Total Network Consultants			\$81,000	
3.3	Seismic Bracing				
3.3.1	Labor and Materials for Complete Seismic Bracing	12300	\$0.5	\$6,150	
	Sub Total Seismic Bracing			\$6,150	
	Sub Total Network Equipment Costs			\$2,169,580	

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4.0	<u>SECTION IV - SERVER SYSTEMS</u>				
4.1	CTM server	1	\$20,000	\$20,000	
4.2	Sun Servers	7	\$30,000	\$210,000	
4.3	Other Servers	15	\$5,000	\$75,000	
4.4	Contingency (10%) for unanticipated items			\$30,500	
	Sub Total Server Systems			\$335,500	
4.5	Estimated Tax @ 8.25%			\$27,679	
4.6	Estimated Freight @ 9.0%			\$30,195	
	Sub Total Tax and Freight			\$57,874	
	Sub Total Server Systems			\$393,374	
5.0	<u>SECTION V - FIBER ENTRANCE FACILITIES</u>				
5.1	Provide and Install Fiber Entrance Facility - Includes Trenching	1		\$500,000	
	Sub Total Fiber Entrance Facilities			\$500,000	

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6.0	<u>SECTION VI - MIS EQUIPMENT COSTS</u>				
6.1	MIS Equipment				
6.1.1	New IBM Mainframe	1	\$650,000	\$650,000	
6.1.2	New IBM RAMAC DASD	1	\$300,000	\$300,000	
6.1.3	Automatic Tape Library	1	\$500,000	\$500,000	
6.1.4	HP Vantage System for HP console management	1	\$25,000	\$25,000	
	Sub Total MIS Equipment			\$1,450,000	
6.2	MIS Connecting Cables				
6.2.1	Plenum-Rated Bus & Tag	20	\$1,200	\$24,000	
6.2.2	Plenum-Rated Fiber ESCON Cables	60	\$300	\$18,000	
	Sub Total MIS Connecting Cables			\$24,000	
6.3	Vendor Consulting				
6.3.1	IBM	120	\$220	\$26,400	
6.3.2	Hewlett-Packard	80	\$220	\$17,600	
6.3.3	Other	60	\$140	\$8,400	
	Sub Total Vendor Consulting			\$52,400	
6.4	Vendor Training				
6.4.1	IBM			\$60,000	
6.4.2	Hewlett-Packard			\$30,000	
6.4.3	Other			\$10,000	
	Sub Total Vendor Training			\$100,000	
6.5	Other Vendor				
6.5.1	MIS Connecting Cable Installation			\$12,000	
	Sub Total Other Vendor			\$12,000	
	Sub Total MIS Equipment Costs			\$1,638,400	

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7.0	SECTION VII - RELOCATION COSTS				
7.1	IBM Mainframe and I/O Hardware				
7.1.1	Relocate all IBM equipment			\$120,000	
	Sub Total IBM Mainframe and I/O Hardware			\$120,000	
7.2	Hewlett-Packard Compute Servers				
7.2.1	Relocate H-P Compute Servers			\$50,000	
	Sub Total Hewlett-Packard Compute Servers			\$50,000	
7.3	Storage Technology Tape Sub-Systems				
7.3.1	Relocate Storage Technology Tape Sub-Systems			\$50,000	
	Sub Total Storage Technology Tape Sub-Systems			\$50,000	
7.4	NEC Fingerprint System				
7.4.1	Relocate NEC fingerprint system			\$50,000	
	Sub Total Storage Technology Tape Sub-Systems			\$50,000	
7.5	Mail Server System				
7.5.1	Relocate AS400 Mail Server system			\$50,000	
	Sub Total AS400 Mail Server			\$50,000	
7.6	Other Relocations				
7.6.1	Relocate Tape Library			\$14,000	
7.6.2	Relocate Servers			\$20,000	
7.6.3	Relocate Printer Room (less large printers)			\$6,000	
7.6.4	Relocate Warrant Room			\$4,000	
7.6.5	Relocate Forms Storage			\$6,000	
7.6.6	Network/Server Hardware			\$20,000	
	Sub Total Other Relocations			\$70,000	
7.7	Relocation Consulting/Project Management				
7.7.1	J&M/ABR Consulting/Project Management	2400	\$130.0	\$312,000	
7.7.2	IBM Consulting/Project Management	300	\$220.0	\$66,000	
7.7.3	Storage Technology Consulting/Project Management	80	\$180.0	\$14,400	
7.7.4	Other Consulting/Project Management	60	\$180.0	\$10,800	
	Sub Total Relocation Consulting/Project Management			\$403,200	
7.8	Pre-Move Installation of Computer Cables				
7.8.1	Pre-Move Installation of Bus & Tag/LIC Cables			\$8,000	
	Sub Total Pre-Move Installation of Computer Cables			\$8,000	

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7.9	Circuit Relocation Costs				
7.9.1	Telco Circuit Retermination Costs	80	\$1,200	\$96,000	
7.9.2	New Analog lines	50	\$500	\$25,000	
7.9.3	Temporary circuits	10	\$1,500	\$15,000	
7.9.4	Relocate Microwave	1	\$3,500	\$3,500	
	Sub Total Circuit Relocation Costs			\$139,500	
	Sub Total Relocation Costs			\$940,700	
8	<u>SECTION VIII - SUMMARY OF COSTS</u>				
Section I	Sub Total Design and Engineering Costs			\$625,800	
Section II	Sub Total Construction Costs			\$6,055,390	
Section III	Sub Total Network Equipment Costs			\$2,169,580	
Section IV	Sub Total Server Systems			\$393,374	
Section V	Sub Total Fiber Entrance Facilities			\$500,000	
Section VI	Sub Total MIS Equipment Costs			\$1,638,400	
Section VII	Sub Total Relocation Costs			\$940,700	
	Total Project Costs			\$12,323,244	