LCLS (CD1	TEC
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D 1		Task Name LCLS Project	OBS	PHASE	Risk 0	Units 25,550.77 wks	PED (Direct) \$29,688,941.14	M&S (Direct) \$82,730,227.00	Labor (Direct) \$23,466,677.92	Direct Cost \$135,885,846.06	Overhead Cost \$23,096,408.72	Contingency Cost \$37,521,300.40	Total Cost \$196,503,555.
2	1.1	-			0	1,441 wks			\$2,972,640.00	\$10,871,560.00	\$1,311,352.00	\$189,210.00	
3	1.1.1	, , ,			0	407 wks	\$579,560.00	\$146,000.00	\$892,320.00	\$1,617,880.00	\$289,696.00	\$38,478.00	\$1,946,054.
1	1.1.1.1	PED			0	143 wks	\$579,560.00	\$0.00	\$0.00	\$579,560.00	\$102,472.00	\$15,264.00	\$697,296.
_		FORUBED			0	440	6570 500 00	50.00	\$0.00	6570.500.00	6400 470 00	545.004.00	5007.000
	1.1.1.1.1	ES&H PED				143 wks	\$579,560.00	\$0.00		\$579,560.00	\$102,472.00	\$15,264.00	\$697,296.
3	1.1.1.1.1	Radiation Physics	SLAC	ED&I	0	77 wks	\$261,800.00	\$0.00	\$0.00	\$261,800.00	\$52,360.00	\$0.00	\$314,160
		SLAC Physicist -Scientist		ED&I	0	77 wks	\$0.00	\$0.00	\$0.00	\$261,800.00	\$0.00	\$0.00	\$0
7	1.1.1.1.1	ES&H Coordination	SLAC	ED&I	0	66 wks	\$221,760.00	\$0.00	\$0.00	\$221,760.00	\$44,352.00	\$0.00	\$266,112
\neg		SLAC Mechanical Engineer		ED&I	0	66 wks	\$0.00	\$0.00	\$0.00	\$221,760.00	\$0.00	\$0.00	\$0
3	1.1.1.1.1	Subcontracts	SLAC	M&S	1	0 wks	\$60,000.00	\$0.00	\$0.00	\$60,000.00	\$3,600.00	\$9,540.00	\$73,140
-		SLAC M&S Total		M&S	0	60,000	\$0.00	\$0.00	\$0.00	\$60,000.00	\$0.00	\$0.00	\$0
•	1.1.1.1.1	M&S	SLAC	M&S	1	0 wks	\$32,000.00	\$0.00	\$0.00	\$32,000.00	\$1,920.00	\$5,088.00	\$39,008
_		SLAC M&S Total		M&S	0	32,000	\$0.00	\$0.00	\$0.00	\$32,000.00	\$0.00	\$0.00	\$0
0	1.1.1.1.1		SLAC	M&S	1	0 wks		\$0.00	\$0.00	\$4,000.00	\$240.00	\$636.00	\$4,876
	1.1.1.1.1		SLAC		'				****				
		SLAC M&S Total		M&S	0	4,000	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$0
	1.1.1.2	ES&H Project			0	264 wks	\$0.00	\$146,000.00	\$892,320.00	\$1,038,320.00	\$187,224.00	\$23,214.00	\$1,248,758
2	1.1.1.2.1	Radiation Physics	SLAC	ED&I	0	132 wks	\$0.00	\$0.00	\$448,800.00	\$448,800.00	\$89,760.00	\$0.00	\$538,56
		SLAC Physicist -Scientist		ED&I	0	132 wks	\$0.00	\$0.00	\$0.00	\$448,800.00	\$0.00	\$0.00	\$6
3	1.1.1.2.1	ES&H Coordination	SLAC	ED&I	0	132 wks	\$0.00	\$0.00	\$443,520.00	\$443,520.00	\$88,704.00	\$0.00	\$532,224
-		SLAC Mechanical Engineer		ED&I	0	132 wks	\$0.00	\$0.00	\$0.00	\$443,520.00	\$0.00	\$0.00	\$6
4	1.1.1.2.1	subcontracts	SLAC	M&S	1	0 wks	\$0.00	\$90,000.00	\$0.00	\$90,000.00	\$5,400.00	\$14,310.00	\$109,71
_		SLAC M&S Total		M&S	0	90,000	\$0.00	\$0.00	\$0.00	\$90,000.00	\$0.00	\$0.00	\$0
	1.1.1.2.1		SLAC	M&S							\$3,000.00		\$60,95
5	1.1.1.2.1		SLAC		1	0 wks	\$0.00	\$50,000.00	\$0.00	\$50,000.00		\$7,950.00	
		SLAC M&S Total		M&S	0	50,000	\$0.00	\$0.00	\$0.00	\$50,000.00	\$0.00	\$0.00	\$0
6	1.1.1.2.1	Travel	SLAC	M&S	1	0 wks	\$0.00	\$6,000.00	\$0.00	\$6,000.00	\$360.00	\$954.00	\$7,314
		SLAC M&S Total		M&S	0	6,000	\$0.00	\$0.00	\$0.00	\$6,000.00	\$0.00	\$0.00	\$0
7	1.1.2	Construction Project Management			0	1,034 wks	\$3,307,360.00	\$3,866,000.00	\$2,080,320.00	\$9,253,680.00	\$1,021,656.00	\$150,732.00	\$10,426,068
В	1.1.2.1	PED			0	374 wks	\$3,307,360.00	\$0.00	\$0.00	\$3,307,360.00	\$373,632.00	\$87,768.00	\$3,768,760
9	1.1.2.1.1	Supervis/Coord PED			0	374 wks	\$3,307,360.00	\$0.00	\$0.00	\$3,307,360.00	\$373,632.00	\$87,768.00	\$3,768,760
0	1.1.2.1.1	Project Director	SLAC	ED&I	0	88 wks	\$422,400.00	\$0.00	\$0.00	\$422,400.00	\$84,480.00	\$0.00	\$506,88
_		SLAC Project Management		ED&I	0	88 wks	\$0.00	\$0.00	\$0.00	\$422,400.00	\$0.00	\$0.00	\$0
-	1.1.2.1.1		SLAC	ED&I	0	88 wks		\$0.00	\$0.00	\$422,400.00	\$84,480.00	\$0.00	\$506,88
	1.1.2.1.1		SLAC										
		SLAC Project Management		ED&I	0	88 wks	\$0.00	\$0.00	\$0.00	\$422,400.00	\$0.00	\$0.00	\$
2	1.1.2.1.1	Quality Assurance	SLAC	ED&I	0	66 wks	\$221,760.00	\$0.00	\$0.00	\$221,760.00	\$44,352.00	\$0.00	\$266,11
		SLAC Mechanical Engineer		ED&I	0	66 wks	\$0.00	\$0.00	\$0.00	\$221,760.00	\$0.00	\$0.00	\$0

101	0	CD4	TEC
LUL		CUI	TEC

ID	CWBS -	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
23	1.1.2.1.1	Admin	SLAC	ED&I	0	132 wks	\$184,800.00	\$0.00	\$0.00	\$184,800.00	\$36,960.00		
\dashv		SLAC Administration		ED&I	0	132 wks	\$0.00	\$0.00	\$0.00	\$184,800.00	\$0.00	\$0.00	\$0.0
24	1.1.2.1.1	PMCS Support	SLAC	M&S	0	0 wks	\$1,504,000.00	\$0.00	\$0.00	\$1,504,000.00	\$90,240.00	\$0.00	\$1,594,240.
\dashv		SLAC M&S Total		M&S	0	1,504,000	\$0.00	\$0.00	\$0.00	\$1,504,000.00	\$0.00	\$0.00	\$0.
25	1.1.2.1.1	Subcontracts	SLAC	M&S	1	0 wks	\$400,000.00	\$0.00	\$0.00	\$400,000.00	\$24,000.00	\$63,600.00	\$487,600.
\dashv		SLAC M&S Total		M&S	0	400,000	\$0.00	\$0.00	\$0.00	\$400,000.00	\$0.00	\$0.00	\$0.
26	1.1.2.1.1	M&S	SLAC	M&S	1	0 wks	\$140,000.00	\$0.00	\$0.00	\$140,000.00	\$8,400.00	\$22,260.00	\$170,660
_		SLAC M&S Total		M&S	0	140,000	\$0.00	\$0.00	\$0.00	\$140,000.00	\$0.00	\$0.00	\$0.
27	1.1.2.1.1	Travel	SLAC	M&S	1	0 wks		\$0.00	\$0.00	\$12,000.00	\$720.00		
	1.1.2.1.1		SEAG		<u> </u>				•				
		SLAC M&S Total		M&S	0	12,000	\$0.00	\$0.00	\$0.00	\$12,000.00	\$0.00	\$0.00	
:8	1.1.2.2	Construction			0	660 wks	\$0.00	\$3,866,000.00	\$2,080,320.00	\$5,946,320.00	\$648,024.00	\$62,964.00	\$6,657,308.
29	1.1.2.2.1	Supervis/Coord Proj			0	660 wks	\$0.00	\$3,866,000.00	\$2,080,320.00	\$5,946,320.00	\$648,024.00	\$62,964.00	\$6,657,308.
80	1.1.2.1.1	Project Director	SLAC	ED&I	0	132 wks	\$0.00	\$0.00	\$633,600.00	\$633,600.00	\$126,720.00	\$0.00	\$760,320
		SLAC Project Management		ED&I	0	132 wks	\$0.00	\$0.00	\$0.00	\$633,600.00	\$0.00	\$0.00	\$0.
1	1.1.2.1.1	Chief Engineer	SLAC	ED&I	0	132 wks	\$0.00	\$0.00	\$633,600.00	\$633,600.00	\$126,720.00	\$0.00	\$760,320
\dashv		SLAC Project Management		ED&I	0	132 wks	\$0.00	\$0.00	\$0.00	\$633,600.00	\$0.00	\$0.00	\$0
2	1.1.2.1.1	Quality Assurance	SLAC	ED&I	0	132 wks	\$0.00	\$0.00	\$443,520.00	\$443,520.00	\$88,704.00	\$0.00	\$532,224
\dashv		SLAC Mechanical Engineer		ED&I	0	132 wks	\$0.00	\$0.00	\$0.00	\$443,520.00	\$0.00	\$0.00	\$0
3	1.1.2.1.1	Admin	SLAC	ED&I	0	264 wks	\$0.00	\$0.00	\$369,600.00	\$369,600.00	\$73,920.00	\$0.00	\$443,520
\dashv		SLAC Administration		ED&I	0	264 wks	\$0.00	\$0.00	\$0.00	\$369,600.00	\$0.00	\$0.00	\$0
4	1.1.2.1.1	PMCS Support	SLAC	M&S	0	0 wks	\$0.00	\$2,820,000.00	\$0.00	\$2,820,000.00	\$169,200.00	\$0.00	\$2,989,200
\dashv		SLAC M&S Total		M&S	0	2,820,000	\$0.00	\$0.00	\$0.00	\$2,820,000.00	\$0.00	\$0.00	\$0
5	1.1.2.1.1	Subcontracts	SLAC	M&S	0	0 wks	\$0.00	\$650,000.00	\$0.00	\$650,000.00	\$39,000.00	\$0.00	\$689,000
\dashv		SLAC M&S Total		M&S	0	650,000	\$0.00	\$0.00	\$0.00	\$650,000.00	\$0.00	\$0.00	\$0
6	1.1.2.1.1	M&S	SLAC	M&S	1	0 wks	\$0.00	\$360,000.00	\$0.00	\$360,000.00	\$21,600.00	\$57,240.00	\$438,840
\dashv		SLAC M&S Total		M&S	0	360,000	\$0.00	\$0.00	\$0.00	\$360,000.00	\$0.00	\$0.00	\$0
7	1.1.2.1.1	Travel	SLAC	M&S	1	0 wks	\$0.00	\$36,000.00	\$0.00	\$36,000.00	\$2,160.00	\$5,724.00	\$43,884
\dashv		SLAC M&S Total		M&S	0	36,000	\$0.00	\$0.00	\$0.00	\$36,000.00	\$0.00	\$0.00	\$0
8	1.1.3	Reserved			0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
9	1.2	Electronic Beam Handling Systems			0	11,380.63 wks	\$15,010,759.58	\$37,939,724.00	\$15,890,182.12	\$68,840,665.70	\$10,674,991.08	\$22,149,893.97	\$101,665,550
0	1.2.1	Injector			0	3,150.98 wks	\$4,134,868.00	\$5,238,124.00	\$4,528,725.76	\$13,901,717.76	\$2,010,746.19	\$4,498,164.26	\$20,410,628
1	1.2.1.1	PED			0	1,407.42 wks	\$4,134,868.00	\$0.00	\$0.00	\$4,134,868.00	\$790,713.60	\$1,579,444.84	\$6,505,026
2	1.2.1.1.1	System Integration	SLAC		0	47 wks	\$239,000.00	\$0.00	\$0.00	\$239,000.00	\$35,200.00	\$68,550.00	\$342,750
3	1.2.1.1.1.1	Computer Equipment	SLAC	M&S	2	0 wks	\$50,000.00	\$0.00	\$0.00	\$50,000.00	\$3,000.00	\$13,250.00	\$66,250
_		SLAC M&S Total		M&S	0	50,000	\$0.00	\$0.00	\$0.00	\$50,000.00	\$0.00	\$0.00	\$0

101	0	CD4	TEC
LUL		CUI	TEC

ID 44		Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
4	1.2.1.1.1.2	Travel	SLAC	M&S	2	0 wks	\$40,000.00	\$0.00	\$0.00	\$40,000.00	\$2,400.00	\$10,600.00	\$53,000
		SLAC M&S Total		M&S	0	40,000	\$0.00	\$0.00	\$0.00	\$40,000.00	\$0.00	\$0.00	\$0.
5	1.2.1.1.1.3	Physics	SLAC	ED&I	2	30 wks	\$102,000.00	\$0.00	\$0.00	\$102,000.00	\$20,400.00	\$30,600.00	\$153,000
		SLAC Physicist -Scientist		ED&I	0	30 wks	\$0.00	\$0.00	\$0.00	\$102,000.00	\$0.00	\$0.00	\$0
6	1.2.1.1.1.4	Engineering	SLAC	ED&I	2	13 wks	\$39,000.00	\$0.00	\$0.00	\$39,000.00	\$7,800.00	\$11,700.00	\$58,500
_		S LAC Electrical Engineer		ED&I	0	13 wks	\$0.00	\$0.00	\$0.00	\$39,000.00	\$0.00	\$0.00	\$0
7	1.2.1.1.1.5	Drafting	SLAC	ED&I	2	4 wks	\$8,000.00	\$0.00	\$0.00	\$8,000.00	\$1,600.00	\$2,400.00	\$12,000
		SLAC Controls: Coordinator Assoc.		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$8,000.00	\$0.00	\$0.00	\$0
3	1.2.1.1.2	Injector Control System			0	206.4 wks	\$538,688.00	\$0.00	\$0.00	\$538,688.00	\$107,737.60	\$323,212.80	\$969,638
)	1.2.1.1.2.1	Hardware Engineer / System Integration	SLAC	ED&I	4	36.4 wks	\$109,200.00	\$0.00	\$0.00	\$109,200.00	\$21,840.00	\$65,520.00	\$196,560
		S LAC Electrical Engineer		ED&I	0	36.4 wks	\$0.00	\$0.00	\$0.00	\$109,200.00	\$0.00	\$0.00	\$0
)	1.2.1.1.2.2	Software Engineer - Feedbacks	SLAC	ED&I	4	52.8 wks	\$133,393.92	\$0.00	\$0.00	\$133,393.92	\$26,678.78	\$80,036.35	\$240,10
		SLAC Controls: Programmer		ED&I	4	52.8 wks	\$0.00	\$0.00	\$0.00	\$133,393.92	\$0.00	\$0.00	\$0
	1.2.1.1.2.3	-	SLAC	ED&I	4	30 wks	\$75,792.00	\$0.00	\$0.00	\$75,792.00	\$15,158.40	\$45,475.20	\$136,42
	1.2.1.1.2.0		OL/10		'								\$100,42
		SLAC Controls: Programmer		ED&I	0	30 wks	\$0.00	\$0.00	\$0.00	\$75,792.00	\$0.00	\$0.00	
-	1.2.1.1.2.4	-	SLAC	ED&I	4	52.2 wks	\$131,878.08	\$0.00	\$0.00	\$131,878.08	\$26,375.62	\$79,126.85	\$237,38
		SLAC Controls: Programmer		ED&I	0	52.2 wks	\$0.00	\$0.00	\$0.00	\$131,878.08	\$0.00	\$0.00	\$6
3	1.2.1.1.2.5	Programmer - Database comp. & Comm.	SLAC	ED&I	4	35 wks	\$88,424.00	\$0.00	\$0.00	\$88,424.00	\$17,684.80	\$53,054.40	\$159,16
		SLAC Controls: Programmer		ED&I	0	35 wks	\$0.00	\$0.00	\$0.00	\$88,424.00	\$0.00	\$0.00	\$6
1	1.2.1.1.3	Vacuum System PED			0	170.4 wks	\$451,824.00	\$0.00	\$0.00	\$451,824.00	\$90,364.80	\$170,026.08	\$712,21
5	1.2.1.1.3.1	Vacuum System Engineering	SLAC	ED&I	3	53.4 wks	\$179,424.00	\$0.00	\$0.00	\$179,424.00	\$35,884.80	\$75,358.08	\$290,66
		SLAC Mechanical Engineer		ED&I	0	53.4 wks	\$0.00	\$0.00	\$0.00	\$179,424.00	\$0.00	\$0.00	\$
3	1.2.1.1.3.2	Vacuum System Design	SLAC	ED&I	3	40 wks	\$92,000.00	\$0.00	\$0.00	\$92,000.00	\$18,400.00	\$38,640.00	\$149,04
_		SLAC Mech Drafting/Design		ED&I	0	40 wks	\$0.00	\$0.00	\$0.00	\$92,000.00	\$0.00	\$0.00	\$6
7	1.2.1.1.3.3	Component layouts, details, assemblies	SLAC	ED&I	3	10 wks	\$23,000.00	\$0.00	\$0.00	\$23,000.00	\$4,600.00	\$9,660.00	\$37,26
		SLAC Mech Drafting/Design		ED&I	0	10 wks	\$0.00	\$0.00	\$0.00	\$23,000.00	\$0.00	\$0.00	\$0
3	1.2.1.1.3.4		SLAC	ED&I	3	48 wks	\$110,400.00	\$0.00	\$0.00	\$110,400.00	\$22,080.00	\$46,368.00	\$178,84
		SLAC Mech Drafting/Design		ED&I	0	48 wks	\$0.00	\$0.00	\$0.00	\$110,400.00	\$0.00	\$0.00	\$
)	1.2.1.1.3.5		SLAC	ED&I	0	9 wks	\$27,000.00	\$0.00	\$0.00	\$27,000.00	\$5,400.00	\$0.00	\$32,40
_	1.2.1.1.3.3		SLAC										
		S LAC Electrical Engineer		ED&I	0	9 wks	\$0.00	\$0.00	\$0.00	\$27,000.00	\$0.00	\$0.00	\$
)	1.2.1.1.3.6	·	SLAC	ED&I	0	10 wks	\$20,000.00	\$0.00	\$0.00	\$20,000.00	\$4,000.00	\$0.00	\$24,00
		SLAC Controls: Coordinator Assoc.		ED&I	0	10 wks	\$0.00	\$0.00	\$0.00	\$20,000.00	\$0.00	\$0.00	\$
	1.2.1.1.4	Reserved			0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$
2	1.2.1.1.4.1	Area layouts/raceways/supports	SLAC	ED&I	2	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$
_		SLAC PCD:Engineer		ED&I	0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0

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ID		Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
63	1.2.1.1.4.2	System dwg (EI,WD,Profile,CC&contrac.)	SLAC	ED&I	2	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
		SLAC Mech Drafting/Design		ED&I	0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
64	1.2.1.1.5	PPS PED			0	15.97 wks	\$39,440.00	\$0.00	\$0.00	\$39,440.00	\$7,888.00	\$11,832.00	\$59,160.
55	1.2.1.1.5.1	PPS Design Engineering	SLAC	ED&I	2	7.5 wks	\$22,500.00	\$0.00	\$0.00	\$22,500.00	\$4,500.00	\$6,750.00	\$33,750.
\dashv		S LAC Electrical Engineer		ED&I	0	7.5 wks	\$0.00	\$0.00	\$0.00	\$22,500.00	\$0.00	\$0.00	\$0.
66	1.2.1.1.5.2	PPS Design Drafting	SLAC	ED&I	2	5.22 wks	\$10,440.00	\$0.00	\$0.00	\$10,440.00	\$2,088.00	\$3,132.00	\$15,660
\dashv		SLAC Controls: Coordinator Assoc.		ED&I	0	5.22 wks	\$0.00	\$0.00	\$0.00	\$10,440.00	\$0.00	\$0.00	\$0
7	1.2.1.1.5.3	Beam stopper drafting	SLAC	ED&I	2	1.5 wks	\$3,000.00	\$0.00	\$0.00	\$3,000.00	\$600.00	\$900.00	\$4,500
\dashv		SLAC Controls: Coordinator Assoc.		ED&I	0	1.5 wks	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0
8	1.2.1.1.5.4	Beam stopper design	SLAC	ED&I	2	1.75 wks	\$3,500.00	\$0.00	\$0.00	\$3,500.00	\$700.00	\$1,050.00	\$5,250
	-	SLAC Controls: Coordinator Assoc.		ED&I	0	1.75 wks	\$0.00	\$0.00	\$0.00	\$3,500.00	\$0.00	\$0.00	\$0
9	1.2.1.1.6	Gun Load Lock			0	103 wks	\$294.080.00	\$0.00	\$0.00	\$294.080.00	\$58,816.00	\$98.304.00	\$451,200
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0	1.2.1.1.6.1	Physics	SLAC	ED&I	2	25 wks	\$85,000.00	\$0.00	\$0.00	\$85,000.00	\$17,000.00	\$25,500.00	\$127,500
		SLAC Physicist -Scientist		ED&I	0	25 wks	\$0.00	\$0.00	\$0.00	\$85,000.00	\$0.00	\$0.00	\$0
1	1.2.1.1.6.2	Load Lock Design	SLAC	ED&I	3	25 wks	\$84,000.00	\$0.00	\$0.00	\$84,000.00	\$16,800.00	\$35,280.00	\$136,080
		SLAC AD: Mech/Vacuum Engineer		ED&I	0	25 wks	\$0.00	\$0.00	\$0.00	\$84,000.00	\$0.00	\$0.00	\$0
2	1.2.1.1.6.3	Load Lock Drafting	SLAC	ED&I	2	50 wks	\$115,000.00	\$0.00	\$0.00	\$115,000.00	\$23,000.00	\$34,500.00	\$172,50
\dashv		SLAC Mech Drafting/Design		ED&I	0	50 wks	\$0.00	\$0.00	\$0.00	\$115,000.00	\$0.00	\$0.00	\$0
3	1.2.1.1.6.4	Load Lock Support Design	SLAC	ED&I	2	2 wks	\$6,720.00	\$0.00	\$0.00	\$6,720.00	\$1,344.00	\$2,016.00	\$10,080
\dashv		SLAC AD: Mech/Vacuum Engineer		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$6,720.00	\$0.00	\$0.00	\$0
4	1.2.1.1.6.5	Load Lock Support Drafting	SLAC	ED&I	2	1 wk	\$3,360.00	\$0.00	\$0.00	\$3,360.00	\$672.00	\$1,008.00	\$5,04
\dashv		SLAC AD: Mech/Vacuum Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$3,360.00	\$0.00	\$0.00	\$0
5	1.2.1.1.7	Bend Magnets - 5D7.1			0	17 wks	\$44,400.00	\$0.00	\$0.00	\$44,400.00	\$8,880.00	\$13,320.00	\$66,600
6	1.2.1.1.7.1	Magnetic Modeling	SLAC	ED&I	2	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
_		SLAC Mechanical Engineer		ED&I	0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
7	1.2.1.1.7.2		SLAC	ED&I	2	3 wks	\$10,080.00	\$0.00	\$0.00	\$10,080.00	\$2,016.00	\$3,024.00	\$15,120
_	1.2.1.1.7.2	SLAC AD: Mech/Vacuum Engineer	JEAC	ED&I	0	3 wks	\$0.00	\$0.00	\$0.00	\$10,080.00	\$0.00	\$0.00	\$13,120
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В	1.2.1.1.7.3	ů ů	SLAC	ED&I	2	8 wks	\$18,400.00	\$0.00	\$0.00	\$18,400.00	\$3,680.00	\$5,520.00	\$27,60
		SLAC Mech Drafting/Design		ED&I	0	8 wks	\$0.00	\$0.00	\$0.00	\$18,400.00	\$0.00	\$0.00	\$
9	1.2.1.1.7.4	Magnet Support Design	SLAC	ED&I	2	2 wks	\$6,720.00	\$0.00	\$0.00	\$6,720.00	\$1,344.00	\$2,016.00	\$10,08
\dashv		SLAC Mechanical Engineer		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$6,720.00	\$0.00	\$0.00	\$
0	1.2.1.1.7.5	Magnet Support Drafting	SLAC	ED&I	2	4 wks	\$9,200.00	\$0.00	\$0.00	\$9,200.00	\$1,840.00	\$2,760.00	\$13,80
\dashv		SLAC Mech Drafting/Design		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$9,200.00	\$0.00	\$0.00	\$6
1	1.2.1.1.8	Quadrupoles - 1Q5.6			0	16 wks	\$43,160.00	\$0.00	\$0.00	\$43,160.00	\$8,632.00	\$12,948.00	\$64,740
2	1.2.1.1.8.1	Magnetic Modeling	SLAC	ED&I	2	2 wks	\$6,720.00	\$0.00	\$0.00	\$6,720.00	\$1,344.00	\$2,016.00	\$10,080

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ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		SLAC Mechanical Engineer		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$6,720.00	\$0.00	\$0.00	\$0.0
33	1.2.1.1.8.2	Magnet Design	SLAC	ED&I	2	3 wks	\$10,080.00	\$0.00	\$0.00	\$10,080.00	\$2,016.00	\$3,024.00	\$15,120.
		SLAC AD: Mech/Vacuum Engineer		ED&I	0	3 wks	\$0.00	\$0.00	\$0.00	\$10,080.00	\$0.00	\$0.00	\$0.
34	1.2.1.1.8.3	Magnet Drafting	SLAC	ED&I	2	8 wks	\$18,400.00	\$0.00	\$0.00	\$18,400.00	\$3,680.00	\$5,520.00	\$27,600.
		SLAC Mech Drafting/Design		ED&I	0	8 wks	\$0.00	\$0.00	\$0.00	\$18,400.00	\$0.00	\$0.00	\$0.
35	1.2.1.1.8.4	Magnet Support Design	SLAC	ED&I	2	1 wk	\$3,360.00	\$0.00	\$0.00	\$3,360.00	\$672.00	\$1,008.00	\$5,040
		SLAC Mechanical Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$3,360.00	\$0.00	\$0.00	\$0
36	1.2.1.1.8.5	Magnet Support Drafting	SLAC	ED&I	2	2 wks	\$4,600.00	\$0.00	\$0.00	\$4,600.00	\$920.00	\$1,380.00	\$6,900
		SLAC Mech Drafting/Design		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,600.00	\$0.00	\$0.00	\$0
37	1.2.1.1.9	Gun Solenoid			0	46 wks	\$125,080.00	\$0.00	\$0.00	\$125,080.00	\$25,016.00	\$22,514.40	\$172,610
38	1.2.1.1.9.1	Physics	SLAC	ED&I	1	5 wks	\$17,000.00	\$0.00	\$0.00	\$17,000.00	\$3,400.00	\$3,060.00	\$23,460
		SLAC Physicist - Senior Scientist		ED&I	0	5 wks	\$0.00	\$0.00	\$0.00	\$17,000.00	\$0.00	\$0.00	\$0
39	1.2.1.1.9.2		SLAC	ED&I	1	8 wks	\$26,880.00	\$0.00	\$0.00	\$26,880.00	\$5,376.00	\$4,838.40	\$37,094
	1.2.1.1.0.2	SLAC AD: Mech/Vacuum Engineer	0210	ED&I	0	8 wks	\$0.00	\$0.00	\$0.00	\$26,880.00	\$0.00	\$0.00	\$0
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0	1.2.1.1.9.3		SLAC	ED&I	1	18 wks	\$41,400.00	\$0.00	\$0.00	\$41,400.00	\$8,280.00	\$7,452.00	\$57,132
		SLAC Mech Drafting/Design		ED&I	0	18 wks	\$0.00	\$0.00	\$0.00	\$41,400.00	\$0.00	\$0.00	\$0
1	1.2.1.1.9.4	Magnet Support Design	SLAC	ED&I	1	5 wks	\$16,800.00	\$0.00	\$0.00	\$16,800.00	\$3,360.00	\$3,024.00	\$23,184
		SLAC AD: Mech/Vacuum Engineer		ED&I	0	5 wks	\$0.00	\$0.00	\$0.00	\$16,800.00	\$0.00	\$0.00	\$0
2	1.2.1.1.9.5	Magnet Support Drafting	SLAC	ED&I	1	10 wks	\$23,000.00	\$0.00	\$0.00	\$23,000.00	\$4,600.00	\$4,140.00	\$31,740
		SLAC Mech Drafting/Design		ED&I	0	10 wks	\$0.00	\$0.00	\$0.00	\$23,000.00	\$0.00	\$0.00	\$0
93	1.2.1.1.10	Linac Solenoid			0	65 wks	\$181,500.00	\$0.00	\$0.00	\$181,500.00	\$36,300.00	\$54,450.00	\$272,250
94	1.2.1.1.10.1	Physics	SLAC	ED&I	2	5 wks	\$17,000.00	\$0.00	\$0.00	\$17,000.00	\$3,400.00	\$5,100.00	\$25,500
		SLAC Physicist -Scientist		ED&I	0	5 wks	\$0.00	\$0.00	\$0.00	\$17,000.00	\$0.00	\$0.00	\$0
15	1.2.1.1.10.2	Magnet Design	SLAC	ED&I	2	12.5 wks	\$42,000.00	\$0.00	\$0.00	\$42,000.00	\$8,400.00	\$12,600.00	\$63,000
		SLAC AD: Mech/Vacuum Engineer		ED&I	0	12.5 wks	\$0.00	\$0.00	\$0.00	\$42,000.00	\$0.00	\$0.00	\$0
96	1.2.1.1.10.3	Magnet Drafting	SLAC	ED&I	2	25 wks	\$57,500.00	\$0.00	\$0.00	\$57,500.00	\$11,500.00	\$17,250.00	\$86,250
		SLAC Mech Drafting/Design		ED&I	0	25 wks	\$0.00	\$0.00	\$0.00	\$57,500.00	\$0.00	\$0.00	\$0
7	1.2.1.1.10.4	Magnet Support Design	SLAC	ED&I	2	12.5 wks	\$42,000.00	\$0.00	\$0.00	\$42,000.00	\$8,400.00	\$12,600.00	\$63,000
		SLAC AD: Mech/Vacuum Engineer		ED&I	0	12.5 wks	\$0.00	\$0.00	\$0.00	\$42,000.00	\$0.00	\$0.00	\$0
8	1.2.1.1.10.5	_	SLAC	ED&I	2	10 wks	\$23,000.00	\$0.00	\$0.00	\$23,000.00	\$4,600.00	\$6,900.00	\$34,500
_	1.2.1.1.10.5	SLAC Mech Drafting/Design	JEAC	ED&I	0	10 wks	\$0.00	\$0.00	\$0.00	\$23,000.00	\$0.00	\$0.00	\$34,300
19	1.2.1.1.11	SLAC Mech Drawing/Design Correctors		LUQI	0	23 wks	\$60,320.00	\$0.00	\$0.00	\$60,320.00	\$12,064.00	\$18,096.00	\$90,480
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00	1.2.1.1.11.1	Magnetic Modeling	SLAC	ED&I	2	1 wk	\$3,360.00	\$0.00	\$0.00	\$3,360.00	\$672.00	\$1,008.00	\$5,040
		SLAC Mechanical Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$3,360.00	\$0.00	\$0.00	\$0
01	1.2.1.1.11.2	Magnet Design	SLAC	ED&I	2	4 wks	\$13,440.00	\$0.00	\$0.00	\$13,440.00	\$2,688.00	\$4,032.00	\$20,160

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ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		SLAC AD: Mech/Vacuum Engineer		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$13,440.00	\$0.00	\$0.00	\$0.0
02	1.2.1.1.11.3	Magnet Drafting	SLAC	ED&I	2	8 wks	\$18,400.00	\$0.00	\$0.00	\$18,400.00	\$3,680.00	\$5,520.00	\$27,600.0
		SLAC Mech Drafting/Design		ED&I	0	8 wks	\$0.00	\$0.00	\$0.00	\$18,400.00	\$0.00	\$0.00	\$0.0
03	1.2.1.1.11.4	Magnet Support Design	SLAC	ED&I	2	2 wks	\$6,720.00	\$0.00	\$0.00	\$6,720.00	\$1,344.00	\$2,016.00	\$10,080.0
		SLAC Mechanical Engineer		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$6,720.00	\$0.00	\$0.00	\$0.0
04	1.2.1.1.11.5	Magnet Support Drafting	SLAC	ED&I	2	8 wks	\$18,400.00	\$0.00	\$0.00	\$18,400.00	\$3,680.00	\$5,520.00	\$27,600.
		SLAC Mech Drafting/Design		ED&I	0	8 wks	\$0.00	\$0.00	\$0.00	\$18,400.00	\$0.00	\$0.00	\$0.0
05	1.2.1.1.12	Gun E Spectrometer			0	17 wks	\$44,400.00	\$0.00	\$0.00	\$44,400.00	\$8,880.00	\$13,320.00	\$66,600.0
06	1.2.1.1.12.1	Magnet Design	SLAC	ED&I	2	3 wks	\$10,080.00	\$0.00	\$0.00	\$10,080.00	\$2,016.00	\$3,024.00	\$15,120.
		SLAC AD: Mech/Vacuum Engineer		ED&I	0	3 wks	\$0.00	\$0.00	\$0.00	\$10,080.00	\$0.00	\$0.00	\$0.0
07	1.2.1.1.12.2	Magnet Drafting	SLAC	ED&I	2	8 wks	\$18,400.00	\$0.00	\$0.00	\$18,400.00	\$3,680.00	\$5,520.00	\$27,600.
		SLAC Mech Drafting/Design		ED&I	0	8 wks	\$0.00	\$0.00	\$0.00	\$18,400.00	\$0.00	\$0.00	\$0.0
08	1.2.1.1.12.3		SLAC	ED&I	2	2 wks	\$6,720.00	\$0.00	\$0.00	\$6,720.00	\$1,344.00	\$2,016.00	\$10,080.
		SLAC AD: Mech/Vacuum Engineer	02.10	ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$6,720.00	\$0.00	\$0.00	\$0.
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09	1.2.1.1.12.4		SLAC	ED&I	2	4 wks	\$9,200.00	\$0.00	\$0.00	\$9,200.00	\$1,840.00	\$2,760.00	\$13,800
		SLAC Mech Drafting/Design		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$9,200.00	\$0.00	\$0.00	\$0.
10	1.2.1.1.13	Straight Ahead E Spectrometer			0	17 wks	\$44,400.00	\$0.00	\$0.00	\$44,400.00	\$8,880.00	\$13,320.00	\$66,600.
11	1.2.1.1.13.1	Magnet Design	SLAC	ED&I	2	3 wks	\$10,080.00	\$0.00	\$0.00	\$10,080.00	\$2,016.00	\$3,024.00	\$15,120.
		SLAC AD: Mech/Vacuum Engineer		ED&I	0	3 wks	\$0.00	\$0.00	\$0.00	\$10,080.00	\$0.00	\$0.00	\$0.
12	1.2.1.1.13.2	Magnet Drafting	SLAC	ED&I	2	8 wks	\$18,400.00	\$0.00	\$0.00	\$18,400.00	\$3,680.00	\$5,520.00	\$27,600
		SLAC Mech Drafting/Design		ED&I	0	8 wks	\$0.00	\$0.00	\$0.00	\$18,400.00	\$0.00	\$0.00	\$0.
113	1.2.1.1.13.3	Magnet Support Design	SLAC	ED&I	2	2 wks	\$6,720.00	\$0.00	\$0.00	\$6,720.00	\$1,344.00	\$2,016.00	\$10,080
		SLAC AD: Mech/Vacuum Engineer		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$6,720.00	\$0.00	\$0.00	\$0.
14	1.2.1.1.13.4	Magnet Support Drafting	SLAC	ED&I	2	4 wks	\$9,200.00	\$0.00	\$0.00	\$9,200.00	\$1,840.00	\$2,760.00	\$13,800
		SLAC Mech Drafting/Design		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$9,200.00	\$0.00	\$0.00	\$0.
15	1.2.1.1.14	Gun			0	100 wks	\$293,540.00	\$0.00	\$0.00	\$293,540.00	\$58,708.00	\$115,242.00	\$467,490.
16	1.2.1.1.14.1	Physics	SLAC	ED&I	3	25 wks	\$85,000.00	\$0.00	\$0.00	\$85,000.00	\$17,000.00	\$35,700.00	\$137,700.
		SLAC Physicist -Scientist		ED&I	0	25 wks	\$0.00	\$0.00	\$0.00	\$85,000.00	\$0.00	\$0.00	\$0.
17	1.2.1.1.14.2		SLAC	ED&I	3	25 wks	\$84,000.00	\$0.00	\$0.00	\$84,000.00	\$16,800.00	\$35,280.00	\$136,080
		SLAC AD: Mech/Vacuum Engineer		ED&I	0	25 wks	\$0.00	\$0.00	\$0.00	\$84,000.00	\$0.00	\$0.00	\$0.
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18	1.2.1.1.14.3	-	SLAC	ED&I	3	25 wks	\$57,500.00	\$0.00	\$0.00	\$57,500.00	\$11,500.00	\$24,150.00	\$93,150
		SLAC Mech Drafting/Design		ED&I	0	25 wks	\$0.00	\$0.00	\$0.00	\$57,500.00	\$0.00	\$0.00	\$0.
19	1.2.1.1.14.4	•	SLAC	ED&I	2	6 wks	\$20,160.00	\$0.00	\$0.00	\$20,160.00	\$4,032.00	\$6,048.00	\$30,240
		SLAC Mechanical Engineer		ED&I	0	6 wks	\$0.00	\$0.00	\$0.00	\$20,160.00	\$0.00	\$0.00	\$0.
20	1.2.1.1.14.5	Gun Support Drafting	SLAC	ED&I	2	10 wks	\$23,000.00	\$0.00	\$0.00	\$23,000.00	\$4,600.00	\$6,900.00	\$34,500.

ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		SLAC Mech Drafting/Design		ED&I	0	10 wks	\$0.00	\$0.00	\$0.00	\$23,000.00	\$0.00	\$0.00	\$0.0
121	1.2.1.1.14.6	Gun Waveguide Design	SLAC	ED&I	2	3 wks	\$10,080.00	\$0.00	\$0.00	\$10,080.00	\$2,016.00	\$3,024.00	\$15,120.0
		SLAC AD: Mech/Vacuum Engineer		ED&I	0	3 wks	\$0.00	\$0.00	\$0.00	\$10,080.00	\$0.00	\$0.00	\$0.0
122	1.2.1.1.14.7	Gun Waveguide Drafting	SLAC	ED&I	2	6 wks	\$13,800.00	\$0.00	\$0.00	\$13,800.00	\$2,760.00	\$4,140.00	\$20,700.
		SLAC Mech Drafting/Design		ED&I	0	6 wks	\$0.00	\$0.00	\$0.00	\$13,800.00	\$0.00	\$0.00	\$0.0
123	1.2.1.1.15	Accelerator Structures			0	19 wks	\$60,240.00	\$0.00	\$0.00	\$60,240.00	\$12,048.00	\$18,072.00	\$90,360.
124	1.2.1.1.15.1	Structure Support Design (all injector)	SLAC		2	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
125	1.2.1.1.15.2	Structure Support Drafting (all injector)	SLAC		2	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
126	1.2.1.1.15.3	Modulator Refurbish PED (all stations)	SLAC		2	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
127	1.2.1.1.15.4	Solid State Subbooster PED (all stations)	SLAC		2	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
128	1.2.1.1.15.5	Controls Interface PED (all stations)	SLAC	ED&I	2	10 wks	\$30,000.00	\$0.00	\$0.00	\$30,000.00	\$6,000.00	\$9,000.00	\$45,000.
		S LAC Electrical Engineer		ED&I	0	10 wks	\$0.00	\$0.00	\$0.00	\$30,000.00	\$0.00	\$0.00	\$0.
129	1.2.1.1.15.6	Structure Waveguide Design	SLAC	ED&I	2	3 wks	\$10,080.00	\$0.00	\$0.00	\$10,080.00	\$2,016.00	\$3,024.00	\$15,120.
		SLAC AD: Mech/Vacuum Engineer		ED&I	0	3 wks	\$0.00	\$0.00	\$0.00	\$10,080.00	\$0.00	\$0.00	\$0.
130	1.2.1.1.15.7	Structure Waveguide Drafting	SLAC	ED&I	2	6 wks	\$20,160.00	\$0.00	\$0.00	\$20,160.00	\$4,032.00	\$6,048.00	\$30,240.
		SLAC Mechanical Engineer		ED&I	0	6 wks	\$0.00	\$0.00	\$0.00	\$20,160.00	\$0.00	\$0.00	\$0.
131	1.2.1.1.16	Transvserse RF Structure			0	9 wks	\$23,880.00	\$0.00	\$0.00	\$23,880.00	\$4,776.00	\$7,164.00	\$35,820.
132	1.2.1.1.16.1	Structure Waveguide Design	SLAC	ED&I	2	3 wks	\$10,080.00	\$0.00	\$0.00	\$10,080.00	\$2,016.00	\$3,024.00	\$15,120.
		SLAC AD: Mech/Vacuum Engineer		ED&I	0	3 wks	\$0.00	\$0.00	\$0.00	\$10,080.00	\$0.00	\$0.00	\$0.
133	1.2.1.1.16.2	Structure Waveguide Drafting	SLAC	ED&I	2	6 wks	\$13,800.00	\$0.00	\$0.00	\$13,800.00	\$2,760.00	\$4,140.00	\$20,700.
		SLAC Mech Drafting/Design		ED&I	0	6 wks	\$0.00	\$0.00	\$0.00	\$13,800.00	\$0.00	\$0.00	\$0.
134	1.2.1.1.17	RF Distribution System			0	263.6 wks	\$909,482.00	\$0.00	\$0.00	\$909,482.00	\$158,236.40	\$347,656.48	\$1,415,374.8
135	1.2.1.1.17.1	System RF Design	SLAC		0	228 wks	\$810,060.40	\$0.00	\$0.00	\$810,060.40	\$138,352.08	\$317,830.00	\$1,266,242.
136	1.2.1.1.17.1	System Drawings	SLAC	ED&I	2	50 wks	\$115,000.00	\$0.00	\$0.00	\$115,000.00	\$23,000.00	\$34,500.00	\$172,500.
		SLAC Mech Drafting/Design		ED&I	0	50 wks	\$0.00	\$0.00	\$0.00	\$115,000.00	\$0.00	\$0.00	\$0.
137	1.2.1.1.17.1	System Drawings	SLAC	ED&I	2	10 wks	\$28,932.00	\$0.00	\$0.00	\$28,932.00	\$5,786.40	\$8,679.60	\$43,398.
		SLAC Klystron: Engineer		ED&I	0	10 wks	\$0.00	\$0.00	\$0.00	\$28,932.00	\$0.00	\$0.00	\$0.
138	1.2.1.1.17.1	LCLS Oscilllator	SLAC	ED&I	3	24 wks	\$69,436.80	\$0.00	\$0.00	\$69,436.80	\$13,887.36	\$29,163.46	\$112,487.
		SLAC Klystron: Engineer		ED&I	0	24 wks	\$0.00	\$0.00	\$0.00	\$69,436.80	\$0.00	\$0.00	\$0.
139	1.2.1.1.17.1	LCLS Oscilllator	SLAC	M&S	3	0 wks	\$20,000.00	\$0.00	\$0.00	\$20,000.00	\$1,200.00	\$7,420.00	\$28,620
		SLAC M&S Total		M&S	0	20,000	\$0.00	\$0.00	\$0.00	\$20,000.00	\$0.00	\$0.00	\$0.
140	1.2.1.1.17.1	2.8MHz Fiducial Design	SLAC	ED&I	3	4 wks	\$11,788.80	\$0.00	\$0.00	\$11,788.80	\$2,357.76	\$4,951.30	\$19,097.
		SLAC Controls: Engineer		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$11,788.80	\$0.00	\$0.00	\$0.
141	1.2.1.1.17.1	SLD Countdown	SLAC	ED&I	2	4 wks	\$11,572.80	\$0.00	\$0.00	\$11,572.80	\$2,314.56	\$3,471.84	\$17,359.
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ID 142	CWBS 1.2.1.1.17.1	Task Name MTG Modifications	OBS SLAC	PHASE ED&I	Risk	Units 12 wks	PED (Direct) \$35,366.40	M&S (Direct) \$0.00	Labor (Direct) \$0.00	Direct Cost \$35,366.40	Overhead Cost \$7,073.28	Contingency Cost \$14,853.89	Total Cost \$57,293.5
172	1.2.1.1.17.1		OLAG										
		SLAC Controls: Engineer		ED&I	0	12 wks	\$0.00	\$0.00	\$0.00	\$35,366.40	\$0.00	\$0.00	\$0.00
143	1.2.1.1.17.1	RF Distribution L0, L1	SLAC	ED&I	2	2 wks	\$5,786.40	\$0.00	\$0.00	\$5,786.40	\$1,157.28	\$1,735.92	\$8,679.6
		SLAC Klystron: Engineer		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$5,786.40	\$0.00	\$0.00	\$0.00
144	1.2.1.1.17.1	Laser Phase Locking Chassis	SLAC	ED&I	2	16 wks	\$46,291.20	\$0.00	\$0.00	\$46,291.20	\$9,258.24	\$13,887.36	\$69,436.8
		SLAC Klystron: Engineer		ED&I	0	16 wks	\$0.00	\$0.00	\$0.00	\$46,291.20	\$0.00	\$0.00	\$0.00
145	1.2.1.1.17.1	Laser Phase Locking Chassis	SLAC	M&S	2	0 wks	\$20,000.00	\$0.00	\$0.00	\$20,000.00	\$1,200.00	\$5,300.00	\$26,500.0
		SLAC M&S Total		M&S	0	20,000	\$0.00	\$0.00	\$0.00	\$20,000.00	\$0.00	\$0.00	\$0.00
146	1.2.1.1.17.1	Optical Detectors	SLAC	ED&I	2	4 wks	\$11,572.80	\$0.00	\$0.00	\$11,572.80	\$2,314.56	\$3,471.84	\$17,359.2
		SLAC Klystron: Engineer		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$11,572.80	\$0.00	\$0.00	\$0.00
147	1.2.1.1.17.1	Optical Detectors	SLAC	M&S	2	0 wks	\$10,000.00	\$0.00	\$0.00	\$10,000.00	\$600.00	\$2,650.00	\$13,250.0
		SLAC M&S Total		M&S	0	10,000	\$0.00	\$0.00	\$0.00	\$10,000.00	\$0.00	\$0.00	\$0.00
148	1.2.1.1.17.1	Beam Phase / Length Detector	SLAC	ED&I	4	20 wks	\$68,000.00	\$0.00	\$0.00	\$68,000.00	\$13,600.00	\$40,800.00	\$122,400.0
		SLAC Physicist - Senior Scientist		ED&I	0	20 wks	\$0.00	\$0.00	\$0.00	\$68,000.00	\$0.00	\$0.00	\$0.00
149	1.2.1.1.17.1	Beam Phase / Length Detector	SLAC	M&S	4	0 wks	\$80,000.00	\$0.00	\$0.00	\$80,000.00	\$4,800.00	\$42,400.00	\$127,200.0
		SLAC M&S Total	02/10	M&S	0	80,000	\$0.00	\$0.00	\$0.00	\$80,000.00	\$0.00	\$0.00	\$0.00
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150	1.2.1.1.17.1	Distribution Amplifier	SLAC	ED&I	2	5 wks	\$14,466.00	\$0.00	\$0.00	\$14,466.00	\$2,893.20	\$4,339.80	\$21,699.0
		SLAC Klystron: Engineer		ED&I	0	5 wks	\$0.00	\$0.00	\$0.00	\$14,466.00	\$0.00	\$0.00	\$0.00
151	1.2.1.1.17.1	S-Band Phase Measurement	SLAC	ED&I	2	12 wks	\$34,718.40	\$0.00	\$0.00	\$34,718.40	\$6,943.68	\$10,415.52	\$52,077.6
		SLAC Klystron: Engineer		ED&I	0	12 wks	\$0.00	\$0.00	\$0.00	\$34,718.40	\$0.00	\$0.00	\$0.00
152	1.2.1.1.17.1	S-Band Phase Measurement	SLAC	M&S	2	0 wks	\$15,000.00	\$0.00	\$0.00	\$15,000.00	\$900.00	\$3,975.00	\$19,875.0
		SLAC M&S Total		M&S	0	15,000	\$0.00	\$0.00	\$0.00	\$15,000.00	\$0.00	\$0.00	\$0.00
153	1.2.1.1.17.1	DAC, SAM Breakout	SLAC	ED&I	2	4 wks	\$11,572.80	\$0.00	\$0.00	\$11,572.80	\$2,314.56	\$3,471.84	\$17,359.2
		SLAC Klystron: Engineer		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$11,572.80	\$0.00	\$0.00	\$0.00
154	1.2.1.1.17.1	DAC, SAM Breakout	SLAC	M&S	2	0 wks	\$4,000.00	\$0.00	\$0.00	\$4,000.00	\$240.00	\$1,060.00	\$5,300.0
		SLAC M&S Total		M&S	0	4,000	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$0.00
155	1.2.1.1.17.1	Sec. 20 Enclosure	SLAC	ED&I	2	1 wk	\$2,424.00	\$0.00	\$0.00	\$2,424.00	\$484.80	\$727.20	\$3,636.0
		SLAC Site Engineering: Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,424.00	\$0.00	\$0.00	\$0.00
156	1.2.1.1.17.1	Solid State Subbooster	SLAC	ED&I	3	50 wks	\$144,660.00	\$0.00	\$0.00	\$144,660.00	\$28,932.00	\$60,757.20	\$234,349.2
		SLAC Klystron: Engineer		ED&I	0	50 wks	\$0.00	\$0.00	\$0.00	\$144,660.00	\$0.00	\$0.00	\$0.00
157	1.2.1.1.17.1	• •	SLAC	M&S	3	0 wks	\$20,000.00	\$0.00	\$0.00	\$20,000.00	\$1,200.00	\$7,420.00	\$28,620.0
		SLAC M&S Total	02.0	M&S	0	20,000	\$0.00	\$0.00	\$0.00	\$20,000.00	\$0.00	\$0.00	\$0.00
158	1.2.1.1.17.1		SLAC	ED&I	3	10 wks	\$29,472.00	\$0.00	\$0.00	\$29,472.00	\$5,894.40	\$12,378.24	\$47,744.6
100	1.2.1.1.1/.1		SLAC										
		SLAC Controls: Engineer		ED&I	0	10 wks	\$0.00	\$0.00	\$0.00	\$29,472.00	\$0.00	\$0.00	\$0.00
159	1.2.1.1.17.2	Controls Design	SLAC	ED&I	2	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0

ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		SLAC Controls: Engineer		ED&I	0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
160	1.2.1.1.17.3	Drafting	SLAC	ED&I	2	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
		SLAC Mech Drafting/Design		ED&I	0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
161	1.2.1.1.17.4	Sector 20 RF Hut design	SLAC		2	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
162	1.2.1.1.17.5	RF Controls Design Engineering	SLAC	ED&I	2	10.1 wks	\$30,300.00	\$0.00	\$0.00	\$30,300.00	\$6,060.00	\$9,090.00	\$45,450.0
		S LAC Electrical Engineer		ED&I	0	10.1 wks	\$0.00	\$0.00	\$0.00	\$30,300.00	\$0.00	\$0.00	\$0.0
163	1.2.1.1.17.6	RF Controls Hardware Engineering	SLAC	ED&I	2	14.7 wks	\$44,100.00	\$0.00	\$0.00	\$44,100.00	\$8,820.00	\$13,230.00	\$66,150.0
		S LAC Electrical Engineer		ED&I	0	14.7 wks	\$0.00	\$0.00	\$0.00	\$44,100.00	\$0.00	\$0.00	\$0.0
164	1.2.1.1.17.6	RF Controls Software Engineering	SLAC	ED&I	2	6.5 wks	\$16,421.60	\$0.00	\$0.00	\$16,421.60	\$3,284.32	\$4,926.48	\$24,632.4
		SLAC Controls: Programmer		ED&I	0	6.5 wks	\$0.00	\$0.00	\$0.00	\$16,421.60	\$0.00	\$0.00	\$0.0
165	1.2.1.1.17.8	RF Controls Coordintaion & Doc.	SLAC	ED&I	2	4.3 wks	\$8,600.00	\$0.00	\$0.00	\$8,600.00	\$1,720.00	\$2,580.00	\$12,900.0
		SLAC Controls: Coordinator Assoc.		ED&I	0	4.3 wks	\$0.00	\$0.00	\$0.00	\$8,600.00	\$0.00	\$0.00	\$0.0
166	1.2.1.1.26	Alignment Laser			0	11.5 wks	\$31,800.00	\$0.00	\$0.00	\$31,800.00	\$6,360.00	\$10,260.00	\$48,420.0
167	1.2.1.1.26.1	Aligment Laser Design	SLAC	ED&I	2	4 wks	\$13,600.00	\$0.00	\$0.00	\$13,600.00	\$2,720.00	\$4,080.00	\$20,400.
		SLAC Physicist -Scientist		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$13,600.00	\$0.00	\$0.00	\$0.0
168	1.2.1.1.26.2	·	SLAC	ED&I	2	4 wks	\$9,200.00	\$0.00	\$0.00	\$9,200.00	\$1,840.00	\$2,760.00	\$13,800.
		SLAC Mech Drafting/Design		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$9,200.00	\$0.00	\$0.00	\$0.
169	1.2.1.1.26.3		SLAC	ED&I	3	2 wks	\$6,000.00	\$0.00	\$0.00	\$6,000.00	\$1,200.00	\$2,520.00	\$9,720.
103	1.2.1.1.20.3	S LAC Electrical Engineer	JLAC	ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$6,000.00	\$0.00	\$0.00	\$0.0
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170	1.2.1.1.26.4	,	SLAC	ED&I	2	1.5 wks	\$3,000.00	\$0.00	\$0.00	\$3,000.00	\$600.00	\$900.00	\$4,500.
		SLAC Controls: Coordinator Assoc.		ED&I	0	1.5 wks	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0.0
171	1.2.1.1.18				0	23.9 wks	\$62,340.00	\$0.00	\$0.00	\$62,340.00	\$12,468.00	\$18,702.00	\$93,510.
172	1.2.1.1.18.1	WS Design	SLAC	ED&I	2	2 wks	\$6,720.00	\$0.00	\$0.00	\$6,720.00	\$1,344.00	\$2,016.00	\$10,080.
		SLAC AD: Mech/Vacuum Engineer		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$6,720.00	\$0.00	\$0.00	\$0.
173	1.2.1.1.18.2	WS Drafting	SLAC	ED&I	2	6 wks	\$13,800.00	\$0.00	\$0.00	\$13,800.00	\$2,760.00	\$4,140.00	\$20,700.0
		SLAC Mech Drafting/Design		ED&I	0	6 wks	\$0.00	\$0.00	\$0.00	\$13,800.00	\$0.00	\$0.00	\$0.0
174	1.2.1.1.18.3	WS Support Design	SLAC	ED&I	2	2 wks	\$6,720.00	\$0.00	\$0.00	\$6,720.00	\$1,344.00	\$2,016.00	\$10,080.
		SLAC Mechanical Engineer		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$6,720.00	\$0.00	\$0.00	\$0.
75	1.2.1.1.18.4	WS Support Drafting	SLAC	ED&I	2	4 wks	\$9,200.00	\$0.00	\$0.00	\$9,200.00	\$1,840.00	\$2,760.00	\$13,800.
		SLAC Mech Drafting/Design		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$9,200.00	\$0.00	\$0.00	\$0.
76	1.2.1.1.18.5	Controls W. S. Hardware Engineering	SLAC	ED&I	2	6.1 wks	\$18,300.00	\$0.00	\$0.00	\$18,300.00	\$3,660.00	\$5,490.00	\$27,450.
		S LAC Electrical Engineer		ED&I	0	6.1 wks	\$0.00	\$0.00	\$0.00	\$18,300.00	\$0.00	\$0.00	\$0.0
177	1.2.1.1.18.6	Coordintaion & Doc.	SLAC	ED&I	2	3.8 wks	\$7,600.00	\$0.00	\$0.00	\$7,600.00	\$1,520.00	\$2,280.00	\$11,400.
		SLAC Controls: Coordinator Assoc.		ED&I	0	3.8 wks	\$0.00	\$0.00	\$0.00	\$7,600.00	\$0.00	\$0.00	\$0.
178	1.2.1.1.19	BPM PED			0	26 wks	\$68,940.00	\$0.00	\$0.00	\$68.940.00	\$13,788.00	\$20,682.00	\$103,410.0

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ID		Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
79	1.2.1.1.19.1	Controls Hardware Engineering	SLAC	ED&I	2	8.5 wks	\$25,500.00	\$0.00	\$0.00	\$25,500.00	\$5,100.00	\$7,650.00	\$38,250.0
		S LAC Electrical Engineer		ED&I	0	8.5 wks	\$0.00	\$0.00	\$0.00	\$25,500.00	\$0.00	\$0.00	\$0.0
80	1.2.1.1.19.1	Controls Hardware Engineering	SLAC	ED&I	2	3.5 wks	\$7,000.00	\$0.00	\$0.00	\$7,000.00	\$1,400.00	\$2,100.00	\$10,500.
		SLAC Controls: Coordinator Assoc.		ED&I	0	3.5 wks	\$0.00	\$0.00	\$0.00	\$7,000.00	\$0.00	\$0.00	\$0.0
81	1.2.1.1.19.2	Controls Coordination and Documentation	SLAC	ED&I	2	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
		SLAC Controls: Coordinator Assoc.		ED&I	0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
82	1.2.1.1.19.2	Controls Coordination and Documentation	SLAC	B&H	2	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
		SLAC Controls: Technician		B&H	0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
83	1.2.1.1.19.3	Design	SLAC	ED&I	2	4 wks	\$13,440.00	\$0.00	\$0.00	\$13,440.00	\$2,688.00	\$4,032.00	\$20,160
		SLAC Mechanical Engineer		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$13,440.00	\$0.00	\$0.00	\$0.
84	1.2.1.1.19.4	-	SLAC	ED&I	2	10 wks	\$23,000.00	\$0.00	\$0.00	\$23,000.00	\$4,600.00	\$6,900.00	\$34,500
	1.2.1.1.10.4	SLAC Mech Drafting/Design	OLAO	ED&I	0	10 wks	\$0.00	\$0.00	\$0.00	\$23,000.00	\$0.00	\$0.00	\$0.
0.5				ED&I									
85	1.2.1.1.19.5		SLAC		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
86	1.2.1.1.19.6	BPM support drafting	SLAC		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
87	1.2.1.1.20	Toroids			0	12 wks	\$30,920.00	\$0.00	\$0.00	\$30,920.00	\$6,184.00	\$9,276.00	\$46,380.
88	1.2.1.1.20.1	Toroid Design	SLAC	ED&I	2	1 wk	\$3,360.00	\$0.00	\$0.00	\$3,360.00	\$672.00	\$1,008.00	\$5,040
		SLAC AD: Mech/Vacuum Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$3,360.00	\$0.00	\$0.00	\$0
89	1.2.1.1.20.2	Toroid Drafting	SLAC	ED&I	2	1 wk	\$2,300.00	\$0.00	\$0.00	\$2,300.00	\$460.00	\$690.00	\$3,450
		SLAC Mech Drafting/Design		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,300.00	\$0.00	\$0.00	\$0.
90	1.2.1.1.20.3	Toroid Support Design	SLAC	ED&I	2	1 wk	\$3,360.00	\$0.00	\$0.00	\$3,360.00	\$672.00	\$1,008.00	\$5,040
		SLAC Mechanical Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$3,360.00	\$0.00	\$0.00	\$0
91	1.2.1.1.20.4	Toroid Support Drafting	SLAC	ED&I	2	3 wks	\$6,900.00	\$0.00	\$0.00	\$6,900.00	\$1,380.00	\$2,070.00	\$10,350
		SLAC Mech Drafting/Design		ED&I	0	3 wks	\$0.00	\$0.00	\$0.00	\$6,900.00	\$0.00	\$0.00	\$0
92	1.2.1.1.20.5		SLAC	ED&I	2	3 wks	\$9,000.00	\$0.00	\$0.00	\$9,000.00	\$1,800.00	\$2,700.00	\$13,500
			02.10	ED&I	0	3 wks	\$0.00	\$0.00	\$0.00	\$9,000.00	\$0.00	\$0.00	\$0
		S LAC Electrical Engineer											
93	1.2.1.1.20.6		SLAC	ED&I	2	3 wks	\$6,000.00	\$0.00	\$0.00	\$6,000.00	\$1,200.00	\$1,800.00	\$9,000
		SLAC Controls: Coordinator Assoc.		ED&I	0	3 wks	\$0.00	\$0.00	\$0.00	\$6,000.00	\$0.00	\$0.00	\$0
94	1.2.1.1.21	Faraday Cup			0	26.5 wks	\$72,380.00	\$0.00	\$0.00	\$72,380.00	\$14,476.00	\$30,399.60	\$117,255.
95	1.2.1.1.21.1	Parameter Definition	SLAC	ED&I	3	1 wk	\$3,400.00	\$0.00	\$0.00	\$3,400.00	\$680.00	\$1,428.00	\$5,508
		SLAC Physicist -Scientist		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$3,400.00	\$0.00	\$0.00	\$0
96	1.2.1.1.21.2	Faraday Cup Design	SLAC	ED&I	3	6 wks	\$20,160.00	\$0.00	\$0.00	\$20,160.00	\$4,032.00	\$8,467.20	\$32,659
		SLAC Mechanical Engineer		ED&I	0	6 wks	\$0.00	\$0.00	\$0.00	\$20,160.00	\$0.00	\$0.00	\$0.
97	1.2.1.1.21.3	Faraday Cup Drafting	SLAC	ED&I	3	8 wks	\$18,400.00	\$0.00	\$0.00	\$18,400.00	\$3,680.00	\$7,728.00	\$29,808
		SLAC Mech Drafting/Design		ED&I	0	8 wks	\$0.00	\$0.00	\$0.00	\$18,400.00	\$0.00	\$0.00	\$0
98	1.2.1.1.21.4	Faraday Cup Support Design	SLAC	ED&I	3	2 wks	\$6,720.00	\$0.00	\$0.00	\$6,720.00	\$1,344.00	\$2.822.40	\$10,886

ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		SLAC Mechanical Engineer		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$6,720.00	\$0.00	\$0.00	\$0.0
99	1.2.1.1.21.5	Faraday Cup Support Drafting	SLAC	ED&I	3	4 wks	\$9,200.00	\$0.00	\$0.00	\$9,200.00	\$1,840.00	\$3,864.00	\$14,904.
		SLAC Mech Drafting/Design		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$9,200.00	\$0.00	\$0.00	\$0.
00	1.2.1.1.21.6	Controls Hardware Engineering	SLAC	ED&I	3	3.5 wks	\$10,500.00	\$0.00	\$0.00	\$10,500.00	\$2,100.00	\$4,410.00	\$17,010.
		S LAC Electrical Engineer		ED&I	0	3.5 wks	\$0.00	\$0.00	\$0.00	\$10,500.00	\$0.00	\$0.00	\$0.
01	1.2.1.1.21.7	Controls Coordintaion & Doc.	SLAC	ED&I	3	2 wks	\$4,000.00	\$0.00	\$0.00	\$4,000.00	\$800.00	\$1,680.00	\$6,480
		SLAC Controls: Coordinator Assoc.		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$0.
02	1.2.1.1.22	Tune-up Dump			0	24.65 wks	\$66,930.00	\$0.00	\$0.00	\$66,930.00	\$13,386.00	\$27,576.60	\$107,892.
03	1.2.1.1.22.1	Parameter Definition	SLAC	ED&I	3	1 wk	\$3,400.00	\$0.00	\$0.00	\$3,400.00	\$680.00	\$1,428.00	\$5,508
		SLAC Physicist -Scientist		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$3,400.00	\$0.00	\$0.00	\$0
04	1.2.1.1.22.2	·	SLAC	ED&I	3	6 wks	\$20,160.00	\$0.00	\$0.00	\$20,160.00	\$4,032.00	\$8,467.20	\$32,659
		SLAC Mechanical Engineer		ED&I	0	6 wks	\$0.00	\$0.00	\$0.00	\$20,160.00	\$0.00	\$0.00	\$0
05	1.2.1.1.22.3	-	SLAC	ED&I	3	8 wks	\$18,400.00	\$0.00	\$0.00	\$18,400.00	\$3,680.00	\$7,728.00	\$29,808
05	1.2.1.1.22.3	-	SLAC	ED&I									
		SLAC Mech Drafting/Design			0	8 wks	\$0.00	\$0.00	\$0.00	\$18,400.00	\$0.00	\$0.00	\$0
06	1.2.1.1.22.4	TD Support Design	SLAC	ED&I	3	2 wks	\$6,720.00	\$0.00	\$0.00	\$6,720.00	\$1,344.00	\$2,822.40	\$10,886
		SLAC Mechanical Engineer		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$6,720.00	\$0.00	\$0.00	\$0
07	1.2.1.1.22.5	TD Support Drafting	SLAC	ED&I	3	6 wks	\$13,800.00	\$0.00	\$0.00	\$13,800.00	\$2,760.00	\$5,796.00	\$22,356
		SLAC Mech Drafting/Design		ED&I	0	6 wks	\$0.00	\$0.00	\$0.00	\$13,800.00	\$0.00	\$0.00	\$0
80	1.2.1.1.22.6	Controls Hardware Engineering	SLAC	ED&I	2	1.15 wks	\$3,450.00	\$0.00	\$0.00	\$3,450.00	\$690.00	\$1,035.00	\$5,175
		S LAC Electrical Engineer		ED&I	0	1.15 wks	\$0.00	\$0.00	\$0.00	\$3,450.00	\$0.00	\$0.00	\$0
09	1.2.1.1.22.7	Controls Coordintaion & Doc.	SLAC	ED&I	2	0.5 wks	\$1,000.00	\$0.00	\$0.00	\$1,000.00	\$200.00	\$300.00	\$1,500
		SLAC Controls: Coordinator Assoc.		ED&I	0	0.5 wks	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0
10	1.2.1.1.23	Profile Monitor			0	49.5 wks	\$137,100.00	\$0.00	\$0.00	\$137,100.00	\$27,420.00	\$57,582.00	\$222,102
11	1.2.1.1.23.1	Parameter Definition	SLAC	ED&I	3	2 wks	\$6,800.00	\$0.00	\$0.00	\$6,800.00	\$1,360.00	\$2,856.00	\$11,016
		SLAC Physicist -Scientist		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$6,800.00	\$0.00	\$0.00	\$0
12	1.2.1.1.23.2	Profile Monitor Design	SLAC	ED&I	3	8 wks	\$26,880.00	\$0.00	\$0.00	\$26,880.00	\$5,376.00	\$11,289.60	\$43,545
		SLAC Mechanical Engineer		ED&I	0	8 wks	\$0.00	\$0.00	\$0.00	\$26,880.00	\$0.00	\$0.00	\$0
13	1.2.1.1.23.3	_	SLAC	ED&I	3	10 wks	\$23,000.00	\$0.00	\$0.00	\$23,000.00	\$4,600.00	\$9,660.00	\$37,260
	1.2.1.1.23.3	SLAC Mech Drafting/Design	JEAC	ED&I	0	10 wks	\$0.00	\$0.00	\$0.00	\$23,000.00	\$0.00	\$0.00	\$07,200
14	1.2.1.1.23.4		SLAC	ED&I	3	2 wks	\$6,720.00	\$0.00	\$0.00	\$6,720.00	\$1,344.00	\$2,822.40	\$10,886
		SLAC Mechanical Engineer		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$6,720.00	\$0.00	\$0.00	\$0
15	1.2.1.1.23.5	Profile Monitor Support Drafting	SLAC	ED&I	3	4 wks	\$9,200.00	\$0.00	\$0.00	\$9,200.00	\$1,840.00	\$3,864.00	\$14,904
		SLAC Mech Drafting/Design		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$9,200.00	\$0.00	\$0.00	\$0
16	1.2.1.1.23.6	Prof. Mon Engineer	SLAC	ED&I	3	8 wks	\$24,000.00	\$0.00	\$0.00	\$24,000.00	\$4,800.00	\$10,080.00	\$38,880
		S LAC Electrical Engineer		ED&I	0	8 wks	\$0.00	\$0.00	\$0.00	\$24,000.00	\$0.00	\$0.00	\$0.

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ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
217	1.2.1.1.23.7	Prof. Mon Coordination & Doc.	SLAC	ED&I	3	3 wks	\$6,000.00	\$0.00	\$0.00	\$6,000.00	\$1,200.00	\$2,520.00	\$9,720.00
		SLAC Controls: Coordinator Assoc.		ED&I	0	3 wks	\$0.00	\$0.00	\$0.00	\$6,000.00	\$0.00	\$0.00	\$0.00
218	1.2.1.1.23.8	Controls Hardware Engineering	SLAC	ED&I	3	9.5 wks	\$28,500.00	\$0.00	\$0.00	\$28,500.00	\$5,700.00	\$11,970.00	\$46,170.0
		S LAC Electrical Engineer		ED&I	0	9.5 wks	\$0.00	\$0.00	\$0.00	\$28,500.00	\$0.00	\$0.00	\$0.00
219	1.2.1.1.23.9	Controls Coordintaion & Doc.	SLAC	ED&I	3	3 wks	\$6,000.00	\$0.00	\$0.00	\$6,000.00	\$1,200.00	\$2,520.00	\$9,720.0
		SLAC Controls: Coordinator Assoc.		ED&I	0	3 wks	\$0.00	\$0.00	\$0.00	\$6,000.00	\$0.00	\$0.00	\$0.00
220	1.2.1.1.24	Gun E-O Diagnostic			0	31.5 wks	\$90,984.00	\$0.00	\$0.00	\$90,984.00	\$18,196.80	\$43,646.88	\$152,827.68
221	1.2.1.1.24.1	E-O Physics	SLAC	ED&I	4	12 wks	\$40,800.00	\$0.00	\$0.00	\$40,800.00	\$8,160.00	\$24,480.00	\$73,440.0
		SLAC Physicist -Scientist		ED&I	0	12 wks	\$0.00	\$0.00	\$0.00	\$40,800.00	\$0.00	\$0.00	\$0.00
000	1011010	·	01.40									.	
222	1.2.1.1.24.2	-	SLAC	ED&I	2	1 wk	\$3,360.00	\$0.00	\$0.00	\$3,360.00	\$672.00	\$1,008.00	\$5,040.0
		SLAC AD: Mech/Vacuum Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$3,360.00	\$0.00	\$0.00	\$0.00
223	1.2.1.1.24.3	E-O Drafting	SLAC	ED&I	2	2 wks	\$4,600.00	\$0.00	\$0.00	\$4,600.00	\$920.00	\$1,380.00	\$6,900.0
		SLAC Mech Drafting/Design		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,600.00	\$0.00	\$0.00	\$0.0
224	1.2.1.1.24.4	E-O Support Design	SLAC	ED&I	2	1 wk	\$3,360.00	\$0.00	\$0.00	\$3,360.00	\$672.00	\$1,008.00	\$5,040.0
		SLAC AD: Mech/Vacuum Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$3,360.00	\$0.00	\$0.00	\$0.0
225	1.2.1.1.24.5	E-O Support Drafting	SLAC	ED&I	2	2 wks	\$4,600.00	\$0.00	\$0.00	\$4,600.00	\$920.00	\$1,380.00	\$6,900.0
		SLAC Mech Drafting/Design		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,600.00	\$0.00	\$0.00	\$0.0
226	1.2.1.1.24.6	Hardware Engineering	SLAC	ED&I	3	2 wks	\$6,000.00	\$0.00	\$0.00	\$6,000.00	\$1,200.00	\$2,520.00	\$9,720.0
		S LAC Electrical Engineer		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$6,000.00	\$0.00	\$0.00	\$0.0
227	1.2.1.1.24.7	CCD Software Interface	SLAC	ED&I	3	10 wks	\$25,264.00	\$0.00	\$0.00	\$25,264.00	\$5,052.80	\$10,610.88	\$40,927.6
		SLAC Controls: Programmer		ED&I	0	10 wks	\$0.00	\$0.00	\$0.00	\$25,264.00	\$0.00	\$0.00	\$0.0
												.	
228	1.2.1.1.24.8		SLAC	ED&I	3	1.5 wks	\$3,000.00	\$0.00	\$0.00	\$3,000.00	\$600.00	\$1,260.00	\$4,860.0
		SLAC Controls: Coordinator Assoc.		ED&I	0	1.5 wks	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0.0
229	1.2.1.1.25	Gun Laser			0	6 wks	\$15,000.00	\$0.00	\$0.00	\$15,000.00	\$3,000.00	\$2,700.00	\$20,700.0
230	1.2.1.1.25.1	Senior Physicist and Physicist	SLAC	ED&I	2	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
		SLAC Physicist - Senior Scientist		ED&I	0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
231	1.2.1.1.25.2	Oscillator and diagnostics	SLAC	ED&I	2	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
		SLAC Physicist -Scientist		ED&I	0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
232	1.2.1.1.25.3	Temporal conditiong (stretchers, compressors, shapes)	SLAC		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
233	1.2.1.1.25.4	Spatial conditioning (spatial filters, flatteners)	SLAC		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
234	1.2.1.1.25.5		SLAC			0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
		layout)			0								
235	1.2.1.1.25.6	·	SLAC		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
236	1.2.1.1.25.7	Timing stabilization	SLAC		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
237	1.2.1.1.25.8	Hot Spares program	SLAC		2	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
238	1.2.1.1.25.9	Hardware Engineering	SLAC	ED&I	2	3 wks	\$9,000.00	\$0.00	\$0.00	\$9,000.00	\$1,800.00	\$2,700.00	\$13,500.0

ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
- U	CWBS	S LAC Electrical Engineer	000	ED&I	0	3 wks	\$0.00	\$0.00	\$0.00	\$9,000.00	\$0.00	\$0.00	\$0.0
39	1.2.1.1.25.10	Coordintaion & Layout	SLAC	ED&I	0	3 wks	\$6,000.00	\$0.00	\$0.00	\$6,000.00	\$1,200.00	\$0.00	\$7,200.0
		SLAC Controls: Coordinator Assoc.		ED&I	0	3 wks	\$0.00	\$0.00	\$0.00	\$6,000.00	\$0.00	\$0.00	\$0.0
40	1.2.1.1.27	Beam Stopper PED			0	15.5 wks	\$40,840.00	\$0.00	\$0.00	\$40,840.00	\$8,168.00	\$13,332.00	\$62,340.0
41	1.2.1.1.27.1	Engineering	SLAC	ED&I	2	4 wks	\$13,440.00	\$0.00	\$0.00	\$13,440.00	\$2,688.00	\$4,032.00	\$20,160.
		SLAC Mechanical Engineer		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$13,440.00	\$0.00	\$0.00	\$0.
42	1.2.1.1.27.2	Design/Drafting	SLAC	ED&I	2	8 wks	\$18,400.00	\$0.00	\$0.00	\$18,400.00	\$3,680.00	\$5,520.00	\$27,600
		SLAC Mech Drafting/Design		ED&I	0	8 wks	\$0.00	\$0.00	\$0.00	\$18,400.00	\$0.00	\$0.00	\$0
43	1.2.1.1.27.3	Controls Hardware Engineering	SLAC	ED&I	3	2 wks	\$6,000.00	\$0.00	\$0.00	\$6,000.00	\$1,200.00	\$2,520.00	\$9,720
		S LAC Electrical Engineer		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$6,000.00	\$0.00	\$0.00	\$0
44	1.2.1.1.27.4	Controls Coordintaion & Doc.	SLAC	ED&I	3	1.5 wks	\$3,000.00	\$0.00	\$0.00	\$3,000.00	\$600.00	\$1,260.00	\$4,860
		SLAC Controls: Coordinator Assoc.		ED&I	0	1.5 wks	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0
45	1.2.1.1.28	New Power Supplies			0	45 wks	\$124,200.00	\$0.00	\$0.00	\$124,200.00	\$24,840.00	\$37,260.00	\$186,300
46	1.2.1.1.28.1	Planning (PS and Cable Plant)	SLAC	ED&I	2	35 wks	\$105,000.00	\$0.00	\$0.00	\$105,000.00	\$21,000.00	\$31,500.00	\$157,500
		SLAC PCD:Engineer		ED&I	0	35 wks	\$0.00	\$0.00	\$0.00	\$105,000.00	\$0.00	\$0.00	\$0
47	1.2.1.1.28.3	System Dwgs (El, WD, Profile for Cable Plant)	SLAC	ED&I	2	10 wks	\$19,200.00	\$0.00	\$0.00	\$19,200.00	\$3,840.00	\$5,760.00	\$28,800
		SLAC PCD:Coordinator Associate		ED&I	0	10 wks	\$0.00	\$0.00	\$0.00	\$19,200.00	\$0.00	\$0.00	\$0
248	1.2.1.2	Mechanical			0	162.1 wks	\$0.00	\$182,000.00	\$403,159.40	\$585,159.40	\$91,551.88	\$184,989.56	\$861,700.
249	1.2.1.2.1	Gun Load Lock			0	40.5 wks	\$0.00	\$70,000.00	\$117,342.60	\$187,342.60	\$27,668.52	\$56,750.98	\$271,762
50	1.2.1.2.1.1	Physics	SLAC	ED&I	2	25 wks	\$0.00	\$0.00	\$85,000.00	\$85,000.00	\$17,000.00	\$25,500.00	\$127,500
		SLAC Physicist -Scientist		ED&I	0	25 wks	\$0.00	\$0.00	\$0.00	\$85,000.00	\$0.00	\$0.00	\$0
51	1.2.1.2.1.2	Gun Load Lock Materials	SLAC	M&S	2	0 wks	\$0.00	\$65,000.00	\$0.00	\$65,000.00	\$3,900.00	\$17,225.00	\$86,125
		SLAC M&S Total		M&S	0	65,000	\$0.00	\$0.00	\$0.00	\$65,000.00	\$0.00	\$0.00	\$0
52	1.2.1.2.1.3	Gun Load Lock Assembly	SLAC	B&H	3	12.5 wks	\$0.00	\$0.00	\$24,985.00	\$24,985.00	\$4,997.00	\$10,493.70	\$40,475
		SLAC Mech. Fab: Assembly Tech		B&H	0	12.5 wks	\$0.00	\$0.00	\$0.00	\$24,985.00	\$0.00	\$0.00	\$0
53	1.2.1.2.1.4	Gun Load Lock Support Materials	SLAC	M&S	2	0 wks	\$0.00	\$5,000.00	\$0.00	\$5,000.00	\$300.00	\$1,325.00	\$6,625
		SLAC M&S Total		M&S	0	5,000	\$0.00	\$0.00	\$0.00	\$5,000.00	\$0.00	\$0.00	\$0
54	1.2.1.2.1.5	Gun Load Lock Support Assembly	SLAC	B&H	2	2 wks	\$0.00	\$0.00	\$3,997.60	\$3,997.60	\$799.52	\$1,199.28	\$5,996
		SLAC Mech. Fab: Assembly Tech		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$3,997.60	\$0.00	\$0.00	\$0
55	1.2.1.2.1.6	Proc. Man. & Assembly Supervision	SLAC	ED&I	2	1 wk	\$0.00	\$0.00	\$3,360.00	\$3,360.00	\$672.00	\$1,008.00	\$5,040
		SLAC AD: Mech/Vacuum Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$3,360.00	\$0.00	\$0.00	\$0
56	1.2.1.2.2	Bend Magnets - 5D7.1			0	1.6 wks	\$0.00	\$1,000.00	\$4,639.52	\$5,639.52	\$987.90	\$1,656.86	\$8,284
57	1.2.1.2.2.1	Support Materials	SLAC	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$265.00	\$1,325
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0
258	1.2.1.2.2.2	Support Machining	SLAC	B&H	2	1.2 wks	\$0.00	\$0.00	\$3,840.00	\$3,840.00	\$768.00	\$1,152.00	\$5,760

ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		SLAC Mech. Fab: Machine Shop		B&H	0	1.2 wks	\$0.00	\$0.00	\$0.00	\$3,840.00	\$0.00	\$0.00	\$0.
59	1.2.1.2.2.3	Magnet Support Assembly	SLAC	B&H	2	0.4 wks	\$0.00	\$0.00	\$799.52	\$799.52	\$159.90	\$239.86	\$1,199
		SLAC Mech. Fab: Assembly Tech		B&H	0	0.4 wks	\$0.00	\$0.00	\$0.00	\$799.52	\$0.00	\$0.00	\$0
0	1.2.1.2.3	Quadrupoles - 1Q5.6			0	14.4 wks	\$0.00	\$5,000.00	\$41,755.68	\$46,755.68	\$8,651.14	\$13,851.70	\$69,258
31	1.2.1.2.3.1	Support Materials	SLAC	M&S	2	0 wks	\$0.00	\$5,000.00	\$0.00	\$5,000.00	\$300.00	\$1,325.00	\$6,625
_		SLAC M&S Total		M&S	0	5,000	\$0.00	\$0.00	\$0.00	\$5,000.00	\$0.00	\$0.00	\$6
2	1.2.1.2.3.2	Support Machining	SLAC	B&H	2	10.8 wks	\$0.00	\$0.00	\$34,560.00	\$34,560.00	\$6,912.00	\$10,368.00	\$51,84
		SLAC Mech. Fab: Machine Shop		B&H	0	10.8 wks	\$0.00	\$0.00	\$0.00	\$34,560.00	\$0.00	\$0.00	\$
53	1.2.1.2.3.3	Magnet Support Assembly	SLAC	B&H	2	3.6 wks	\$0.00	\$0.00	\$7,195.68	\$7,195.68	\$1,439.14	\$2,158.70	\$10,79
		SLAC Mech. Fab: Assembly Tech		B&H	0	3.6 wks	\$0.00	\$0.00	\$0.00	\$7,195.68	\$0.00	\$0.00	\$
64	1.2.1.2.4	Gun Solenoid			0	4 wks	\$0.00	\$4,000.00	\$7,995.20	\$11,995.20	\$1,839.04	\$636.00	\$14,470
5	1.2.1.2.4.1	Gun Sol Support Materials	SLAC	M&S	1	0 wks	\$0.00	\$4,000.00	\$0.00	\$4,000.00	\$240.00	\$636.00	\$4,87
		SLAC M&S Total		M&S	0	4,000	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$
66	1.2.1.2.4.2	Gun Sol Support Assembly	SLAC	B&H	6	4 wks	\$0.00	\$0.00	\$7,995.20	\$7,995.20	\$1,599.04	\$0.00	\$9,59
		SLAC Mech. Fab: Assembly Tech		B&H	0	4 wks	\$0.00	\$0.00	\$0.00	\$7,995.20	\$0.00	\$0.00	\$
57	1.2.1.2.5	Linac Solenoid		24.7	0	8 wks	\$0.00	\$10,000.00	\$15,990.40	\$25,990.40	\$3,798.08	\$7,447.12	\$37,23
8	1.2.1.2.5.1	Support materials	SLAC	M&S	2	0 wks	\$0.00	\$10,000.00	\$0.00	\$10,000.00	\$600.00	\$2,650.00	\$13,25
	1.2.1.2.5.1	SUPPORT MATERIALS SLAC M&S Total	SLAC	M&S	0	10,000	\$0.00	\$0.00	\$0.00	\$10,000.00	\$0.00	\$0.00	\$13,23
20	101050		81.40		2	8 wks	\$0.00						
69	1.2.1.2.5.2	,	SLAC	B&H			, , , , ,	\$0.00	\$15,990.40	\$15,990.40	\$3,198.08	\$4,797.12	\$23,98
		SLAC Mech. Fab: Assembly Tech		B&H	0	8 wks	\$0.00	\$0.00	\$0.00	\$15,990.40	\$0.00	\$0.00	\$
70	1.2.1.2.6	Correctors			0	6.6 wks	\$0.00	\$6,000.00	\$18,477.36	\$24,477.36	\$4,055.47	\$7,133.21	\$35,66
71	1.2.1.2.6.1	Support Materials	SLAC	M&S	2	0 wks	\$0.00	\$6,000.00	\$0.00	\$6,000.00	\$360.00	\$1,590.00	\$7,95
		SLAC M&S Total		M&S	0	6,000	\$0.00	\$0.00	\$0.00	\$6,000.00	\$0.00	\$0.00	\$
72	1.2.1.2.6.2	Support Machining	SLAC	B&H	2	4.4 wks	\$0.00	\$0.00	\$14,080.00	\$14,080.00	\$2,816.00	\$4,224.00	\$21,12
		SLAC Mech. Fab: Machine Shop		B&H	0	4.4 wks	\$0.00	\$0.00	\$0.00	\$14,080.00	\$0.00	\$0.00	\$
73	1.2.1.2.6.3	Magnet Support Assembly	SLAC	B&H	2	2.2 wks	\$0.00	\$0.00	\$4,397.36	\$4,397.36	\$879.47	\$1,319.21	\$6,59
		SLAC Mech. Fab: Assembly Tech		B&H	0	2.2 wks	\$0.00	\$0.00	\$0.00	\$4,397.36	\$0.00	\$0.00	\$
74	1.2.1.2.7	Gun E Spectrometer			0	12 wks	\$0.00	\$12,000.00	\$23,985.60	\$35,985.60	\$5,517.12	\$16,299.36	\$57,80
75	1.2.1.2.7.1	Support Materials	SLAC	M&S	1	0 wks	\$0.00	\$12,000.00	\$0.00	\$12,000.00	\$720.00	\$1,908.00	\$14,62
_		SLAC M&S Total		M&S	0	12,000	\$0.00	\$0.00	\$0.00	\$12,000.00	\$0.00	\$0.00	\$
6	1.2.1.2.7.2	Assembly/Mfg	SLAC	B&H	4	12 wks	\$0.00	\$0.00	\$23,985.60	\$23,985.60	\$4,797.12	\$14,391.36	\$43,17
		SLAC Mech. Fab: Assembly Tech		B&H	0	12 wks	\$0.00	\$0.00	\$0.00	\$23,985.60	\$0.00	\$0.00	\$
77	1.2.1.2.8	Straight Ahead E Spectrometer			0	1.6 wks	\$0.00	\$1,000.00	\$4,639.52	\$5,639.52	\$987.90	\$1,790.71	\$8,41
78	1.2.1.2.8.1	Support Materials	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,21
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$

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ID		Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
279	1.2.1.2.8.2	Support Machining	SLAC	B&H	2	1.2 wks	\$0.00	\$0.00	\$3,840.00	\$3,840.00	\$768.00	\$1,152.00	\$5,760.0
		SLAC Mech. Fab: Machine Shop		B&H	0	1.2 wks	\$0.00	\$0.00	\$0.00	\$3,840.00	\$0.00	\$0.00	\$0.0
280	1.2.1.2.8.3	Magnet Support Assembly	SLAC	B&H	4	0.4 wks	\$0.00	\$0.00	\$799.52	\$799.52	\$159.90	\$479.71	\$1,439.
		SLAC Mech. Fab: Assembly Tech		B&H	0	0.4 wks	\$0.00	\$0.00	\$0.00	\$799.52	\$0.00	\$0.00	\$0.0
81	1.2.1.2.9	Accelerator Structures			0	18.5 wks	\$0.00	\$34,000.00	\$36,977.80	\$70,977.80	\$9,435.56	\$22,555.70	\$102,969.0
82	1.2.1.2.9.1	Accelerator Base Support Materials	SLAC	M&S	1	0 wks	\$0.00	\$23,000.00	\$0.00	\$23,000.00	\$1,380.00	\$3,657.00	\$28,037.
		SLAC M&S Total		M&S	0	23,000	\$0.00	\$0.00	\$0.00	\$23,000.00	\$0.00	\$0.00	\$0.
83	1.2.1.2.9.2	Accelerator Base Support Assembly	SLAC	B&H	4	12.5 wks	\$0.00	\$0.00	\$24,985.00	\$24,985.00	\$4,997.00	\$14,991.00	\$44,973.
		SLAC Mech. Fab: Assembly Tech		B&H	0	12.5 wks	\$0.00	\$0.00	\$0.00	\$24,985.00	\$0.00	\$0.00	\$0.
84		Accelerator Materials		M&S	1	0 wks	\$0.00	\$11,000.00	\$0.00	\$11,000.00	\$660.00	\$1,749.00	\$13,409.
		SLAC M&S Total		M&S	0	11,000	\$0.00	\$0.00	\$0.00	\$11,000.00	\$0.00	\$0.00	\$0.
85		Accelerator Assembly		B&H	1	6 wks	\$0.00	\$0.00	\$11,992.80	\$11,992.80	\$2,398.56	\$2,158.70	\$16,550
		SLAC Mech. Fab: Assembly Tech		B&H	0	6 wks	\$0.00	\$0.00	\$0.00	\$11,992.80	\$0.00	\$0.00	\$0.
86	1.2.1.2.10	Gun			0	6 wks	\$0.00	\$5,000.00	\$11,992.80	\$16,992.80	\$2,698.56	\$7,990.68	\$27,682.
87	1.2.1.2.10.1	Support Materials	SLAC	M&S	1	0 wks	\$0.00	\$5,000.00	\$0.00	\$5,000.00	\$300.00	\$795.00	\$6,095
		SLAC M&S Total		M&S	0	5,000	\$0.00	\$0.00	\$0.00	\$5,000.00	\$0.00	\$0.00	\$0
88	1.2.1.2.10.2	Support Assembly	SLAC	B&H	4	6 wks	\$0.00	\$0.00	\$11,992.80	\$11,992.80	\$2,398.56	\$7,195.68	\$21,587
		SLAC Mech. Fab: Assembly Tech		B&H	0	6 wks	\$0.00	\$0.00	\$0.00	\$11,992.80	\$0.00	\$0.00	\$0.
89	1.2.1.2.11	Transverse RF Structure			0	4 wks	\$0.00	\$4,000.00	\$7,995.20	\$11,995.20	\$1,839.04	\$5,433.12	\$19,267.
90	1.2.1.2.11.1	Transverse RF Support Materials	SLAC	M&S	1	0 wks	\$0.00	\$4,000.00	\$0.00	\$4,000.00	\$240.00	\$636.00	\$4,876
		SLAC M&S Total		M&S	0	4,000	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$0.
91	1.2.1.2.11.2	Transverse RF Support Assembly	SLAC	B&H	4	4 wks	\$0.00	\$0.00	\$7,995.20	\$7,995.20	\$1,599.04	\$4,797.12	\$14,391
		SLAC Mech. Fab: Assembly Tech		B&H	0	4 wks	\$0.00	\$0.00	\$0.00	\$7,995.20	\$0.00	\$0.00	\$0.
92	1.2.1.2.12	Wire Scanners			0	6 wks	\$0.00	\$3,000.00	\$17,998.80	\$20,998.80	\$3,779.76	\$6,194.64	\$30,973.
93	1.2.1.2.12.1	Support Materials	SLAC	M&S	2	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$180.00	\$795.00	\$3,975
		SLAC M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0.
94	1.2.1.2.12.2		SLAC	B&H	2	4 wks	\$0.00	\$0.00	\$12,800.00	\$12,800.00	\$2,560.00	\$3,840.00	\$19,200
	1.2.1.2.12.2	SLAC Mech. Fab: Machine Shop	OL/10	B&H	0	4 wks	\$0.00	\$0.00	\$0.00	\$12,800.00	\$0.00	\$0.00	\$0
95	1.2.1.2.12.3	Support Welding	SLAC	B&H	2	1 wk	, , , , ,	\$0.00	\$3,200.00	\$3,200.00	\$640.00	\$960.00	\$4,800
90	1.2.1.2.12.3	··· -	SLAC		-								
		SLAC Mech. Fab: Machine Shop		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$3,200.00	\$0.00	\$0.00	\$0
96	1.2.1.2.12.4	WS Support Assembly	SLAC	B&H	2	1 wk	\$0.00	\$0.00	\$1,998.80	\$1,998.80	\$399.76	\$599.64	\$2,998
		SLAC Mech. Fab: Assembly Tech		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$1,998.80	\$0.00	\$0.00	\$0
97	1.2.1.2.13	BPMs			0	13.5 wks	\$0.00	\$16,000.00	\$26,983.80	\$42,983.80	\$6,356.76	\$12,335.14	\$61,675.
98	1.2.1.2.13.1	BPM Materials	SLAC	M&S	2	0 wks	\$0.00	\$16,000.00	\$0.00	\$16,000.00	\$960.00	\$4,240.00	\$21,200
		SLAC M&S Total		M&S	0	16,000	\$0.00	\$0.00	\$0.00	\$16,000.00	\$0.00	\$0.00	\$0.

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ID		Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
299	1.2.1.2.13.2	BPM Assembly	SLAC	B&H	2	13.5 wks	\$0.00	\$0.00	\$26,983.80	\$26,983.80	\$5,396.76	\$8,095.14	\$40,475.7
		SLAC Mech. Fab: Assembly Tech		B&H	0	13.5 wks	\$0.00	\$0.00	\$0.00	\$26,983.80	\$0.00	\$0.00	\$0.0
300	1.2.1.2.14	Toroids			0	4 wks	\$0.00	\$1,000.00	\$11,598.80	\$12,598.80	\$2,379.76	\$3,744.64	\$18,723.2
301	1.2.1.2.14.1	Support Materials	SLAC	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$265.00	\$1,325.0
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.0
302	1.2.1.2.14.2	Support Machining		B&H	2	3 wks	\$0.00	\$0.00	\$9,600.00	\$9,600.00	\$1,920.00	\$2,880.00	\$14,400.0
		SLAC Mech. Fab: Machine Shop		B&H	0	3 wks	\$0.00	\$0.00	\$0.00	\$9,600.00	\$0.00	\$0.00	\$0.0
303	1.2.1.2.14.3	Toro Support Assembly	SLAC	B&H	2	1 wk	\$0.00	\$0.00	\$1,998.80	\$1,998.80	\$399.76	\$599.64	\$2,998.2
		SLAC Mech. Fab: Assembly Tech		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$1,998.80	\$0.00	\$0.00	\$0.0
304	1.2.1.2.15	Faraday Cup			0	3.6 wks	\$0.00	\$1,000.00	\$10,318.80	\$11,318.80	\$2,123.76	\$4,704.90	\$18,147.4
305	1.2.1.2.15.1	Support Materials	SLAC	M&S	3	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$371.00	\$1,431.0
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.0
306	1.2.1.2.15.2	Support Machining	SLAC	B&H	3	2 wks	\$0.00	\$0.00	\$6,400.00	\$6,400.00	\$1,280.00	\$2,688.00	\$10,368.0
		SLAC Mech. Fab: Machine Shop		В&Н	0	2 wks	\$0.00	\$0.00	\$0.00	\$6,400.00	\$0.00	\$0.00	\$0.0
307	1.2.1.2.15.3	Support Welding	SLAC	B&H	3	0.6 wks	\$0.00	\$0.00	\$1,920.00	\$1,920.00	\$384.00	\$806.40	\$3,110.4
		SLAC Mech. Fab: Machine Shop		B&H	0	0.6 wks	\$0.00	\$0.00	\$0.00	\$1,920.00	\$0.00	\$0.00	\$0.0
308	1.2.1.2.15.4	FC Support Assembly	SLAC	B&H	3	1 wk	\$0.00	\$0.00	\$1,998.80	\$1,998.80	\$399.76	\$839.50	\$3,238.0
		SLAC Mech. Fab: Assembly Tech		В&Н	0	1 wk	\$0.00	\$0.00	\$0.00	\$1,998.80	\$0.00	\$0.00	\$0.0
309	1.2.1.2.16	Tune-up Dump			0	1.8 wks	\$0.00	\$1,000.00	\$5,279.52	\$6,279.52	\$1,115.90	\$2,588.40	\$9,983.83
310	1.2.1.2.16.1	Support Materials	SLAC	M&S	3	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$371.00	\$1,431.0
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.0
311	1.2.1.2.16.2	Support Machining	SLAC	B&H	3	1 wk	\$0.00	\$0.00	\$3,200.00	\$3,200.00	\$640.00	\$1,344.00	\$5,184.0
		SLAC Mech. Fab: Machine Shop		В&Н	0	1 wk	\$0.00	\$0.00	\$0.00	\$3,200.00	\$0.00	\$0.00	\$0.0
312	1.2.1.2.16.3	Support Welding	SLAC	B&H	3	0.4 wks	\$0.00	\$0.00	\$1,280.00	\$1,280.00	\$256.00	\$537.60	\$2,073.6
		SLAC Mech. Fab: Machine Shop		B&H	0	0.4 wks	\$0.00	\$0.00	\$0.00	\$1,280.00	\$0.00	\$0.00	\$0.0
313	1.2.1.2.16.4	TD Support Assembly	SLAC	B&H	3	0.4 wks	\$0.00	\$0.00	\$799.52	\$799.52	\$159.90	\$335.80	\$1,295.2
		SLAC Mech. Fab: Assembly Tech		B&H	0	0.4 wks	\$0.00	\$0.00	\$0.00	\$799.52	\$0.00	\$0.00	\$0.0
314	1.2.1.2.17	Profile Monitor			0	10 wks	\$0.00	\$5,000.00	\$27,195.20	\$32,195.20	\$5,739.04	\$9,483.56	\$47,417.8
315	1.2.1.2.17.1	Support Materials	SLAC	M&S	2	0 wks	\$0.00	\$5,000.00	\$0.00	\$5,000.00	\$300.00	\$1,325.00	\$6,625.0
		SLAC M&S Total		M&S	0	5,000	\$0.00	\$0.00	\$0.00	\$5,000.00	\$0.00	\$0.00	\$0.0
16	1010170		SLAC	B&H	2	6 wks							
110	1.2.1.2.17.2	Support Machining SLAC Mech. Fab: Machine Shop	SLAC	B&H	0	6 wks	\$0.00 \$0.00	\$0.00 \$0.00	\$19,200.00 \$0.00	\$19,200.00 \$19,200.00	\$3,840.00 \$0.00	\$5,760.00 \$0.00	\$28,800.0 \$0.0
317	1212472	·	SLAC				\$0.00					\$0.00	
017	1.2.1.2.17.3	,,	SLAC	B&H	2	4 wks	,,,,,,	\$0.00	\$7,995.20	\$7,995.20	\$1,599.04	, , ,	\$11,992.8
		SLAC Mech. Fab: Assembly Tech		B&H	0	4 wks	\$0.00	\$0.00	\$0.00	\$7,995.20	\$0.00	\$0.00	\$0.0
318	1.2.1.2.18	Beam Stopper			0	6 wks	\$0.00	\$3,000.00	\$11,992.80	\$14,992.80	\$2,578.56	\$4,392.84	\$21,964.2

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320 1 321 322 1	1.2.1.2.18.1	Beam Stopper Support Materials SLAC M&S Total	SLAC	M&S	1 2 1								
21 22 1		SLAC M&S Total			-	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$180.00	\$795.00	\$3,975.
21 22 1				M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0.
22 1		Beam Stopper Support Assembly	SLAC	B&H	2	6 wks	\$0.00	\$0.00	\$11,992.80	\$11,992.80	\$2,398.56	\$3,597.84	\$17,989
22 1		SLAC Mech. Fab: Assembly Tech		B&H	0	6 wks	\$0.00	\$0.00	\$0.00	\$11,992.80	\$0.00	\$0.00	\$0.
	1.2.1.2.19	Reserved			0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
23 1	1.2.1.2.19.1	E-O Support Materials	SLAC		1	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
	1.2.1.2.19.2	E-O Support Assembly	SLAC	B&H	4	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
+		SLAC Mech. Fab: Assembly Tech		В&Н	0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
24	1.2.1.3	Vaccum			0	116.2 wks	\$0.00	\$550,000.00	\$244,180.04	\$794,180.04	\$81,836.01	\$306,605.62	\$1,182,621
25	1.2.1.3.1	Beamline Vacuum System			0	70.9 wks	\$0.00	\$250,000.00	\$150,150.92	\$400,150.92	\$45,030.18	\$155,813.39	\$600,994
26	1.2.1.3.1.1	Ion Pumps	SLAC	B&H	3	1 wk	\$0.00	\$0.00	\$1,998.80	\$1,998.80	\$399.76	\$839.50	\$3,238
\perp		SLAC Mech. Fab: Assembly Tech		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$1,998.80	\$0.00	\$0.00	\$0
27	1.2.1.3.1.2	Combination Ion Pumps	SLAC	B&H	3	1.2 wks	\$0.00	\$0.00	\$2,398.56	\$2,398.56	\$479.71	\$1,007.40	\$3,885
\perp		SLAC Mech. Fab: Assembly Tech		B&H	0	1.2 wks	\$0.00	\$0.00	\$0.00	\$2,398.56	\$0.00	\$0.00	\$0
28	1.2.1.3.1.3		SLAC	B&H	3	0.9 wks	\$0.00	\$0.00	\$1,798.92	\$1,798.92	\$359.78	\$755.55	\$2,914
	1.2.1.0.1.0	SLAC Mech. Fab: Assembly Tech	0210	B&H	0	0.9 wks	\$0.00	\$0.00	\$0.00	\$1,798.92	\$0.00	\$0.00	\$0
	101011		81.40										
29	1.2.1.3.1.4	Cold cath & pirani gauges	SLAC	B&H	3	0.8 wks	\$0.00	\$0.00	\$1,599.04	\$1,599.04	\$319.81	\$671.60	\$2,59
		SLAC Mech. Fab: Assembly Tech		B&H	0	0.8 wks	\$0.00	\$0.00	\$0.00	\$1,599.04	\$0.00	\$0.00	\$0
30	1.2.1.3.1.5	5 5	SLAC	B&H	3	0.3 wks	\$0.00	\$0.00	\$599.64	\$599.64	\$119.93	\$251.85	\$97
		SLAC Mech. Fab: Assembly Tech		B&H	0	0.3 wks	\$0.00	\$0.00	\$0.00	\$599.64	\$0.00	\$0.00	\$6
31	1.2.1.3.1.6	Gauge controller	SLAC	B&H	3	0.4 wks	\$0.00	\$0.00	\$799.52	\$799.52	\$159.90	\$335.80	\$1,29
		SLAC Mech. Fab: Assembly Tech		B&H	0	0.4 wks	\$0.00	\$0.00	\$0.00	\$799.52	\$0.00	\$0.00	\$0
32	1.2.1.3.1.7	Drift sections	SLAC	B&H	3	1.75 wks	\$0.00	\$0.00	\$3,497.90	\$3,497.90	\$699.58	\$1,469.12	\$5,666
		SLAC Mech. Fab: Assembly Tech		B&H	0	1.75 wks	\$0.00	\$0.00	\$0.00	\$3,497.90	\$0.00	\$0.00	\$0
33	1.2.1.3.1.8	Bellows/manifold	SLAC	B&H	3	3 wks	\$0.00	\$0.00	\$5,996.40	\$5,996.40	\$1,199.28	\$2,518.49	\$9,71
\dashv		SLAC Mech. Fab: Assembly Tech		B&H	0	3 wks	\$0.00	\$0.00	\$0.00	\$5,996.40	\$0.00	\$0.00	\$0
34	1.2.1.3.1.9	Vac tees/hdw	SLAC	B&H	3	1.25 wks	\$0.00	\$0.00	\$2,498.50	\$2,498.50	\$499.70	\$1,049.37	\$4,04
+		SLAC Mech. Fab: Assembly Tech		B&H	0	1.25 wks	\$0.00	\$0.00	\$0.00	\$2,498.50	\$0.00	\$0.00	\$0
35 1	1.2.1.3.1.10	Valve	SLAC	B&H	3	0.8 wks	\$0.00	\$0.00	\$1,599.04	\$1,599.04	\$319.81	\$671.60	\$2,59
		SLAC Mech. Fab: Assembly Tech		B&H	0	0.8 wks	\$0.00	\$0.00	\$0.00	\$1,599.04	\$0.00	\$0.00	\$
86 1	1.2.1.3.1.11	Fast valve	SLAC	B&H	3	0.4 wks	\$0.00	\$0.00	\$799.52	\$799.52	\$159.90	\$335.80	\$1,29
+		SLAC Mech. Fab: Assembly Tech		B&H	0	0.4 wks	\$0.00	\$0.00	\$0.00	\$799.52	\$0.00	\$0.00	\$
37 1	1.2.1.3.1.12	·	SLAC	B&H	3	0.3 wks	\$0.00	\$0.00	\$599.64	\$599.64	\$119.93	\$251.85	\$97
_		SLAC Mech. Fab: Assembly Tech		B&H	0	0.3 wks	\$0.00	\$0.00	\$0.00	\$599.64	\$0.00	\$0.00	\$0
38 1	1.2.1.3.1.13		SLAC	B&H	3	12.8 wks	\$0.00	\$0.00	\$25.584.64	\$25,584,64	\$5,116.93	\$10,745.55	\$41,44

I CI	S	CD1	TEC

ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		SLAC Mech. Fab: Assembly Tech		B&H	0	12.8 wks	\$0.00	\$0.00	\$0.00	\$25,584.64	\$0.00	\$0.00	\$0.
39	1.2.1.3.1.14	QC/alignment	SLAC	B&H	3	30 wks	\$0.00	\$0.00	\$68,400.00	\$68,400.00	\$13,680.00	\$28,728.00	\$110,808.
		SLAC Metrology:Eng.& Surveyors		B&H	0	30 wks	\$0.00	\$0.00	\$0.00	\$68,400.00	\$0.00	\$0.00	\$0.
40	1.2.1.3.1.15	Assembly	SLAC	B&H	3	16 wks	\$0.00	\$0.00	\$31,980.80	\$31,980.80	\$6,396.16	\$13,431.94	\$51,808
		SLAC Mech. Fab: Assembly Tech		B&H	0	16 wks	\$0.00	\$0.00	\$0.00	\$31,980.80	\$0.00	\$0.00	\$0
41	1.2.1.3.1.1	Ion Pumps	SLAC	M&S	3	0 wks	\$0.00	\$12,000.00	\$0.00	\$12,000.00	\$720.00	\$4,452.00	\$17,172
		SLAC M&S Total		M&S	0	12,000	\$0.00	\$0.00	\$0.00	\$12,000.00	\$0.00	\$0.00	\$0
42	1.2.1.3.1.2	Combination Ion Pumps	SLAC	M&S	3	0 wks	\$0.00	\$23,000.00	\$0.00	\$23,000.00	\$1,380.00	\$8,533.00	\$32,913
		SLAC M&S Total		M&S	0	23,000	\$0.00	\$0.00	\$0.00	\$23,000.00	\$0.00	\$0.00	\$0
43	1.2.1.3.1.3	Pump PS	SLAC	M&S	3	0 wks	\$0.00	\$83,000.00	\$0.00	\$83,000.00	\$4,980.00	\$30,793.00	\$118,773
		SLAC M&S Total		M&S	0	83,000	\$0.00	\$0.00	\$0.00	\$83,000.00	\$0.00	\$0.00	\$0
44	1.2.1.3.1.4	Cold cath & pirani gauges	SLAC	M&S	3	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$180.00	\$1,113.00	\$4,293
		SLAC M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0
45	1.2.1.3.1.5		SLAC	M&S	3	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$371.00	\$1,431
	1.2.1.0.1.0	5 5	OL/10	M&S		1,000	\$0.00	\$0.00	\$0.00		\$0.00	\$0.00	\$1,40
		SLAC M&S Total			0					\$1,000.00			
16	1.2.1.3.1.6	·	SLAC	M&S	3	0 wks	\$0.00	\$8,000.00	\$0.00	\$8,000.00	\$480.00	\$2,968.00	\$11,44
		SLAC M&S Total		M&S	0	8,000	\$0.00	\$0.00	\$0.00	\$8,000.00	\$0.00	\$0.00	\$0
47	1.2.1.3.1.7	Drift sections	SLAC	M&S	3	0 wks	\$0.00	\$4,000.00	\$0.00	\$4,000.00	\$240.00	\$1,484.00	\$5,72
		SLAC M&S Total		M&S	0	4,000	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$0
48	1.2.1.3.1.8	Bellows/manifold	SLAC	M&S	3	0 wks	\$0.00	\$11,000.00	\$0.00	\$11,000.00	\$660.00	\$4,081.00	\$15,74
		SLAC M&S Total		M&S	0	11,000	\$0.00	\$0.00	\$0.00	\$11,000.00	\$0.00	\$0.00	\$6
49	1.2.1.3.1.9	Vac tees/hdw	SLAC	M&S	3	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$742.00	\$2,86
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0
50	1.2.1.3.1.10	Valve	SLAC	M&S	3	0 wks	\$0.00	\$53,000.00	\$0.00	\$53,000.00	\$3,180.00	\$19,663.00	\$75,843
		SLAC M&S Total		M&S	0	53,000	\$0.00	\$0.00	\$0.00	\$53,000.00	\$0.00	\$0.00	\$0
51	1.2.1.3.1.11	Fast valve	SLAC	M&S	3	0 wks	\$0.00	\$8,000.00	\$0.00	\$8,000.00	\$480.00	\$2,968.00	\$11,448
		SLAC M&S Total		M&S	0	8,000	\$0.00	\$0.00	\$0.00	\$8,000.00	\$0.00	\$0.00	\$0
52	1.2.1.3.1.12	Fast valve controller/sensor	SLAC	M&S	3	0 wks	\$0.00	\$10,000.00	\$0.00	\$10,000.00	\$600.00	\$3,710.00	\$14,31
		SLAC M&S Total		M&S	0	10,000	\$0.00	\$0.00	\$0.00	\$10,000.00	\$0.00	\$0.00	\$0
3	1.2.1.3.1.13		SLAC	M&S	3	0 wks	\$0.00	\$32,000.00	\$0.00	\$32,000.00	\$1,920.00		\$45,79
	1.2.1.3.1.13	SLAC M&S Total	JEAC	M&S	0	32,000	\$0.00	\$0.00	\$0.00	\$32,000.00	\$0.00	\$0.00	\$(
54	1.2.1.3.2	SLAC M&S TOTAL		ivias	0	45.3 wks	\$0.00	\$300,000.00	\$94,029.12	\$32,000.00	\$36,805.82	\$150,792.23	\$581,627
			01.40	Dell						. ,			
55	1.2.1.3.2.1	Waveguide Ion Pumps	SLAC	B&H	3	2.9 wks	\$0.00	\$0.00	\$9,280.00	\$9,280.00	\$1,856.00	\$3,897.60	\$15,03
		SLAC Mech. Fab: Machine Shop		B&H	0	2.9 wks	\$0.00	\$0.00	\$0.00	\$9,280.00	\$0.00	\$0.00	\$0
56	1.2.1.3.2.1	Waveguide Ion Pumps	SLAC	M&S	3	0 wks	\$0.00	\$35,000.00	\$0.00	\$35,000.00	\$2,100.00	\$12,985.00	\$50,08

I CI	S	CD1	TEC

ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		SLAC M&S Total		M&S	0	35,000	\$0.00	\$0.00	\$0.00	\$35,000.00	\$0.00	\$0.00	\$0.0
357	1.2.1.3.2.2	Pump PS	SLAC	B&H	3	1.8 wks	\$0.00	\$0.00	\$3,597.84	\$3,597.84	\$719.57	\$1,511.09	\$5,828.5
		SLAC Mech. Fab: Assembly Tech		B&H	0	1.8 wks	\$0.00	\$0.00	\$0.00	\$3,597.84	\$0.00	\$0.00	\$0.0
358	1.2.1.3.2.2	Pump PS	SLAC	M&S	3	0 wks	\$0.00	\$173,000.00	\$0.00	\$173,000.00	\$10,380.00	\$64,183.00	\$247,563.0
		SLAC M&S Total		M&S	0	173,000	\$0.00	\$0.00	\$0.00	\$173,000.00	\$0.00	\$0.00	\$0.0
359	1.2.1.3.2.3	Supports	SLAC	B&H	3	14.8 wks	\$0.00	\$0.00	\$29,582.24	\$29,582.24	\$5,916.45	\$12,424.54	\$47,923.2
		SLAC Mech. Fab: Assembly Tech		B&H	0	14.8 wks	\$0.00	\$0.00	\$0.00	\$29,582.24	\$0.00	\$0.00	\$0.0
360	1.2.1.3.2.3	Supports	SLAC	M&S	3	0 wks	\$0.00	\$39,000.00	\$0.00	\$39,000.00	\$2,340.00	\$14,469.00	\$55,809.0
		SLAC M&S Total		M&S	0	39,000	\$0.00	\$0.00	\$0.00	\$39,000.00	\$0.00	\$0.00	\$0.0
361	1.2.1.3.2.3	Loads	SLAC	B&H	3	0.8 wks	\$0.00	\$0.00	\$1,599.04	\$1,599.04	\$319.81	\$671.60	\$2,590.4
		SLAC Mech. Fab: Assembly Tech		B&H	0	0.8 wks	\$0.00	\$0.00	\$0.00	\$1,599.04	\$0.00	\$0.00	\$0.0
362	1.2.1.3.2.3		SLAC	M&S	3	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$180.00	\$1,113.00	\$4,293.0
		SLAC M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00		\$0.0
363	1.2.1.3.2.3		SLAC	B&H	3	25 wks	\$0.00	\$0.00	\$49,970.00	\$49,970.00	\$9,994.00		\$80,951.4
303	1.2.1.3.2.3	, and the second	SLAC										
		SLAC Mech. Fab: Assembly Tech		B&H	0	25 wks	\$0.00	\$0.00	\$0.00	\$49,970.00	\$0.00		\$0.0
364	1.2.1.3.2.3	, and the second	SLAC	M&S	3	0 wks	\$0.00	\$50,000.00	\$0.00	\$50,000.00	\$3,000.00		\$71,550.0
		SLAC M&S Total		M&S	0	50,000	\$0.00	\$0.00	\$0.00	\$50,000.00	\$0.00		\$0.0
365	1.2.1.4	Diagnostics			0	187.8 wks	\$0.00	\$676,000.00	\$505,530.40	\$1,181,530.40	\$141,666.08	\$373,119.99	\$1,696,316.4
366	1.2.1.4.1	Tune-up Dumps			0	8.2 wks	\$0.00	\$5,000.00	\$22,620.40	\$27,620.40	\$4,824.08	\$11,355.57	\$43,800.0
367	1.2.1.4.1.1	TD Materials	SLAC	M&S	3	0 wks	\$0.00	\$5,000.00	\$0.00	\$5,000.00	\$300.00	\$1,855.00	\$7,155.0
		SLAC M&S Total		M&S	0	5,000	\$0.00	\$0.00	\$0.00	\$5,000.00	\$0.00	\$0.00	\$0.0
368	1.2.1.4.1.2	TD Part Machining	SLAC	B&H	3	4 wks	\$0.00	\$0.00	\$12,800.00	\$12,800.00	\$2,560.00	\$5,376.00	\$20,736.0
		SLAC Mech. Fab: Machine Shop		B&H	0	4 wks	\$0.00	\$0.00	\$0.00	\$12,800.00	\$0.00	\$0.00	\$0.0
369	1.2.1.4.1.3	TD Parts QA	SLAC	B&H	3	0.6 wks	\$0.00	\$0.00	\$1,368.00	\$1,368.00	\$273.60	\$574.56	\$2,216.1
		SLAC Metrology:Eng.& Surveyors		B&H	0	0.6 wks	\$0.00	\$0.00	\$0.00	\$1,368.00	\$0.00	\$0.00	\$0.0
370	1.2.1.4.1.4	TD Plating Cleaning	SLAC	B&H	3	0.4 wks	\$0.00	\$0.00	\$2,000.00	\$2,000.00	\$400.00	\$840.00	\$3,240.0
		SLAC Mech. Fab: Plating & Cleaning		B&H	0	0.4 wks	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.0
371	1.2.1.4.1.5	TD Brazing/Welding	SLAC	B&H	3	2 wks	\$0.00	\$0.00	\$3,997.60	\$3,997.60	\$799.52	\$1,678.99	\$6,476.1
		SLAC Mech. Fab: Assembly Tech		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$3,997.60	\$0.00	\$0.00	\$0.0
372	1.2.1.4.1.6	·	SLAC	B&H	3	1 wk		\$0.00	\$1,998.80	\$1,998.80	\$399.76		\$3,238.0
312	1.2.1.4.1.0	,	SLAC	B&H									
	40	SLAC Mech. Fab: Assembly Tech	81.16		0	1 wk	\$0.00	\$0.00	\$0.00	\$1,998.80	\$0.00		\$0.0
030	1.2.1.4.1.7	TD Fiducialize	SLAC	B&H	3	0.2 wks	\$0.00	\$0.00	\$456.00	\$456.00	\$91.20		\$738.7
373				B&H	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$456.00	\$0.00	\$0.00	\$0.0
		SLAC Metrology:Eng.& Surveyors											
373	1.2.1.4.2			20.7	0	33 wks	\$0.00	\$30,000.00	\$91,576.80	\$121,576.80	\$20,115.36	\$35,423.04	\$177,115.20

C	CD1	TEC

ID	CWBS	Task Name	OBS	PHASE M&S	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		SLAC M&S Total			0	30,000	\$0.00	\$0.00	\$0.00	\$30,000.00	\$0.00	\$0.00	\$0.
76	1.2.1.4.2.2	WS Part Machining	SLAC	B&H	2	16 wks	\$0.00	\$0.00	\$51,200.00	\$51,200.00	\$10,240.00	\$15,360.00	\$76,800
		SLAC Mech. Fab: Machine Shop		B&H	0	16 wks	\$0.00	\$0.00	\$0.00	\$51,200.00	\$0.00	\$0.00	\$0
77	1.2.1.4.2.3	WS Parts QA	SLAC	B&H	2	2 wks	\$0.00	\$0.00	\$4,560.00	\$4,560.00	\$912.00	\$1,368.00	\$6,840
		SLAC Metrology:Eng.& Surveyors		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,560.00	\$0.00	\$0.00	\$0
78	1.2.1.4.2.4	WS Plating Cleaning	SLAC	B&H	2	2 wks	\$0.00	\$0.00	\$10,000.00	\$10,000.00	\$2,000.00	\$3,000.00	\$15,00
		SLAC Mech. Fab: Plating & Cleaning		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$10,000.00	\$0.00	\$0.00	\$
79	1.2.1.4.2.5	WS Brazing/Welding	SLAC	B&H	2	4 wks	\$0.00	\$0.00	\$7,995.20	\$7,995.20	\$1,599.04	\$2,398.56	\$11,99
		SLAC Mech. Fab: Assembly Tech		B&H	0	4 wks	\$0.00	\$0.00	\$0.00	\$7,995.20	\$0.00	\$0.00	\$
30	1.2.1.4.2.6	WS Coating	SLAC	B&H	2	2 wks	\$0.00	\$0.00	\$3,548.80	\$3,548.80	\$709.76	\$1,064.64	\$5,32
		SLAC Klystron: Technician		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$3,548.80	\$0.00	\$0.00	\$
31	1.2.1.4.2.7	WS Assembly	SLAC	B&H	2	4 wks	\$0.00	\$0.00	\$7,995.20	\$7,995.20	\$1,599.04	\$2,398.56	\$11,99
		SLAC Mech. Fab: Assembly Tech		B&H	0	4 wks	\$0.00	\$0.00	\$0.00	\$7,995.20	\$0.00	\$0.00	\$
32	1.2.1.4.2.8	WS Fiducialize	SLAC	B&H	2	1 wk	\$0.00	\$0.00	\$2,280.00	\$2,280.00	\$456.00	\$684.00	\$3,42
		SLAC Metrology:Eng.& Surveyors		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,280.00	\$0.00	\$0.00	\$
33	1.2.1.4.2.9		SLAC	B&H	2	2 wks	\$0.00	\$0.00	\$3,997.60	\$3,997.60	\$799.52	\$1,199.28	\$5.99
	1.2.1.4.2.9	SLAC Mech. Fab: Assembly Tech	JEAC	B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$3,997.60	\$0.00	\$0.00	\$5,35
34	1.2.1.4.3	BPMs		Б«п		45 wks	\$0.00	\$38,000.00	\$89,946.00	\$127,946.00	\$20,269.20	\$35,572.88	\$183,78
					0					. ,			
35	1.2.1.4.3.1	BPMs	SLAC		0	30 wks	\$0.00	\$28,000.00	\$59,964.00	\$87,964.00	\$13,672.80	\$35,572.88	\$137,20
36	1.2.1.4.3.1	Materials	SLAC	M&S	3	0 wks	\$0.00	\$28,000.00	\$0.00	\$28,000.00	\$1,680.00	\$10,388.00	\$40,06
		SLAC M&S Total		M&S	0	28,000	\$0.00	\$0.00	\$0.00	\$28,000.00	\$0.00	\$0.00	\$
87	1.2.1.4.3.1	Assembly/Mfg	SLAC	B&H	3	30 wks	\$0.00	\$0.00	\$59,964.00	\$59,964.00	\$11,992.80	\$25,184.88	\$97,14
		SLAC Mech. Fab: Assembly Tech		B&H	0	30 wks	\$0.00	\$0.00	\$0.00	\$59,964.00	\$0.00	\$0.00	\$
38	1.2.1.4.3.2	SPECIAL PBM	SLAC		0	15 wks	\$0.00	\$10,000.00	\$29,982.00	\$39,982.00	\$6,596.40	\$0.00	\$46,57
39	1.2.1.4.3.2	Materials	SLAC	M&S	0	0 wks	\$0.00	\$10,000.00	\$0.00	\$10,000.00	\$600.00	\$0.00	\$10,60
		SLAC M&S Total		M&S	0	10,000	\$0.00	\$0.00	\$0.00	\$10,000.00	\$0.00	\$0.00	\$
90	1.2.1.4.3.2	Assembly/Mfg	SLAC	B&H	0	15 wks	\$0.00	\$0.00	\$29,982.00	\$29,982.00	\$5,996.40	\$0.00	\$35,97
		SLAC Mech. Fab: Assembly Tech		B&H	0	15 wks	\$0.00	\$0.00	\$0.00	\$29,982.00	\$0.00	\$0.00	\$
91	1.2.1.4.4	Toroids			0	16 wks	\$0.00	\$18,000.00	\$39,676.00	\$57,676.00	\$9,015.20	\$16,672.80	\$83,36
92	1.2.1.4.4.1	Toro Materials	SLAC	M&S	2	0 wks	\$0.00	\$18,000.00	\$0.00	\$18,000.00	\$1,080.00	\$4,770.00	\$23,85
		SLAC M&S Total		M&S	0	18,000	\$0.00	\$0.00	\$0.00	\$18,000.00	\$0.00	\$0.00	\$
3	1.2.1.4.4.2		SLAC	B&H	2	4 wks	\$0.00	\$0.00	\$12,800.00	\$12,800.00	\$2,560.00	\$3,840.00	\$19,20
		SLAC Mech. Fab: Machine Shop		B&H	0	4 wks	\$0.00	\$0.00	\$0.00	\$12,800.00	\$0.00	\$0.00	ş,
94	1.2.1.4.4.3	·	SLAC	B&H	2	2 wks	\$0.00	\$0.00	\$4,560.00	\$4,560.00	\$912.00	\$1,368.00	\$6,84
7 *1	1.2.1.4.4.3		SLAC										
		SLAC Metrology:Eng.& Surveyors		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,560.00	\$0.00	\$0.00	

		Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
95 1.2	.2.1.4.4.4	Toro Plating Cleaning	SLAC	B&H	2	1 wk	\$0.00	\$0.00	\$5,000.00	\$5,000.00	\$1,000.00	\$1,500.00	\$7,500.
		SLAC Mech. Fab: Plating & Cleaning		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$5,000.00	\$0.00	\$0.00	\$0.
96 1.2	.2.1.4.4.5	Toro Brazing/Welding	SLAC	B&H	2	3 wks	\$0.00	\$0.00	\$5,996.40	\$5,996.40	\$1,199.28	\$1,798.92	\$8,994
		SLAC Mech. Fab: Assembly Tech		B&H	0	3 wks	\$0.00	\$0.00	\$0.00	\$5,996.40	\$0.00	\$0.00	\$0.
97 1.2	.2.1.4.4.6	Toro Assembly	SLAC	B&H	2	1 wk	\$0.00	\$0.00	\$1,998.80	\$1,998.80	\$399.76	\$599.64	\$2,998
		SLAC Mech. Fab: Assembly Tech		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$1,998.80	\$0.00	\$0.00	\$0
98 1.2	.2.1.4.4.7	Toro Coating	SLAC	B&H	2	3 wks	\$0.00	\$0.00	\$5,323.20	\$5,323.20	\$1,064.64	\$1,596.96	\$7,984
		SLAC Klystron: Technician		B&H	0	3 wks	\$0.00	\$0.00	\$0.00	\$5,323.20	\$0.00	\$0.00	\$0
99 1.2	.2.1.4.4.8	Toro Vac Process	SLAC	B&H	2	2 wks	\$0.00	\$0.00	\$3,997.60	\$3,997.60	\$799.52	\$1,199.28	\$5,996
		SLAC Mech. Fab: Assembly Tech		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$3,997.60	\$0.00	\$0.00	\$0
00 1	1.2.1.4.5	Faraday Cup			0	19.6 wks	\$0.00	\$16,000.00	\$53,117.20	\$69,117.20	\$11,583.44	\$28,245.22	\$108,945
)1 1.2	.2.1.4.5.1	FC Materials	SLAC	M&S	3	0 wks	\$0.00	\$16,000.00	\$0.00	\$16,000.00	\$960.00	\$5,936.00	\$22,896
		SLAC M&S Total		M&S	0	16,000	\$0.00	\$0.00	\$0.00	\$16,000.00	\$0.00	\$0.00	\$0
02 1.2	.2.1.4.5.2		SLAC	B&H	3	6 wks	\$0.00	\$0.00	\$19,200.00	\$19,200.00	\$3,840.00	\$8,064.00	\$31,10
,2 1.2	.2.1.4.5.2	·	SEAC				,,,,,,						
		SLAC Mech. Fab: Machine Shop		B&H	0	6 wks	\$0.00	\$0.00	\$0.00	\$19,200.00	\$0.00	\$0.00	\$0
3 1.2	.2.1.4.5.3	FC Parts QA	SLAC	B&H	3	2 wks	\$0.00	\$0.00	\$4,560.00	\$4,560.00	\$912.00	\$1,915.20	\$7,38
		SLAC Metrology:Eng.& Surveyors		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,560.00	\$0.00	\$0.00	\$6
1.2	.2.1.4.5.4	FC Plating Cleaning	SLAC	B&H	3	2 wks	\$0.00	\$0.00	\$10,000.00	\$10,000.00	\$2,000.00	\$4,200.00	\$16,20
		SLAC Mech. Fab: Plating & Cleaning		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$10,000.00	\$0.00	\$0.00	\$0
5 1.2	.2.1.4.5.5	FC Brazing/Welding	SLAC	B&H	3	4 wks	\$0.00	\$0.00	\$7,995.20	\$7,995.20	\$1,599.04	\$3,357.98	\$12,95
		SLAC Mech. Fab: Assembly Tech		B&H	0	4 wks	\$0.00	\$0.00	\$0.00	\$7,995.20	\$0.00	\$0.00	\$
06 1.2	.2.1.4.5.6	FC Assembly	SLAC	B&H	3	4 wks	\$0.00	\$0.00	\$7,995.20	\$7,995.20	\$1,599.04	\$3,357.98	\$12,95
		SLAC Mech. Fab: Assembly Tech		B&H	0	4 wks	\$0.00	\$0.00	\$0.00	\$7,995.20	\$0.00	\$0.00	\$6
7 1.2	.2.1.4.5.7	FC Fiducialize	SLAC	B&H	3	0.6 wks	\$0.00	\$0.00	\$1,368.00	\$1,368.00	\$273.60	\$574.56	\$2,21
		SLAC Metrology:Eng.& Surveyors		B&H	0	0.6 wks	\$0.00	\$0.00	\$0.00	\$1,368.00	\$0.00	\$0.00	\$6
08 1.2	.2.1.4.5.8	FC Vac Process	SLAC	B&H	3	1 wk	\$0.00	\$0.00	\$1,998.80	\$1,998.80	\$399.76	\$839.50	\$3,23
		SLAC Mech. Fab: Assembly Tech		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$1,998.80	\$0.00	\$0.00	\$0
9 1	1.2.1.4.6	Profile Monitor			0	36 wks	\$0.00	\$66,000.00	\$110,877.60	\$176,877.60	\$26,135.52	\$71,054.59	\$274,067
0 1.2	.2.1.4.6.1	Prof Materials	SLAC	M&S	3	0 wks	\$0.00	\$66,000.00	\$0.00	\$66,000.00	\$3,960.00	\$24,486.00	\$94,44
		SLAC M&S Total		M&S	0	66,000	\$0.00	\$0.00	\$0.00	\$66,000.00	\$0.00	\$0.00	\$
1 1.2	.2.1.4.6.2		SLAC	B&H	3	16 wks	\$0.00	\$0.00	\$51,200.00	\$51,200.00	\$10,240.00	\$21,504.00	\$82,94
		SLAC Mech. Fab: Machine Shop	32.10	B&H	0	16 wks	\$0.00	\$0.00	\$0.00	\$51,200.00	\$0.00	\$0.00	\$02,54
2 1.2	.2.1.4.6.3	Prof Parts QA	SLAC	B&H	3	4 wks	\$0.00	\$0.00	\$9,120.00	\$9,120.00	\$1,824.00	\$3,830.40	\$14,77
2 1.2	.2.1.4.0.3		SLAC				,,,,,,						
		SLAC Metrology:Eng.& Surveyors		B&H	0	4 wks	\$0.00	\$0.00	\$0.00	\$9,120.00	\$0.00	\$0.00	\$
3 1.2	.2.1.4.6.4	Prof Plating Cleaning	SLAC	B&H	3	2 wks	\$0.00	\$0.00	\$10,000.00	\$10,000.00	\$2,000.00	\$4,200.00	\$16,20

ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		SLAC Mech. Fab: Plating & Cleaning		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$10,000.00	\$0.00	\$0.00	\$0.0
14	1.2.1.4.6.5	Prof Brazing/Welding	SLAC	B&H	3	6 wks	\$0.00	\$0.00	\$19,200.00	\$19,200.00	\$3,840.00	\$8,064.00	\$31,104.0
		SLAC Mech. Fab: Machine Shop		B&H	0	6 wks	\$0.00	\$0.00	\$0.00	\$19,200.00	\$0.00	\$0.00	\$0.0
115	1.2.1.4.6.6	Prof Assembly	SLAC	B&H	3	4 wks	\$0.00	\$0.00	\$12,800.00	\$12,800.00	\$2,560.00	\$5,376.00	\$20,736.0
		SLAC Mech. Fab: Machine Shop		B&H	0	4 wks	\$0.00	\$0.00	\$0.00	\$12,800.00	\$0.00	\$0.00	\$0.0
116	1.2.1.4.6.7	Prof Fiducialize	SLAC	B&H	3	2 wks	\$0.00	\$0.00	\$4,560.00	\$4,560.00	\$912.00	\$1,915.20	\$7,387.
		SLAC Metrology:Eng.& Surveyors		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,560.00	\$0.00	\$0.00	\$0.
117	1.2.1.4.6.8	Prof Vac Process	SLAC	B&H	3	2 wks	\$0.00	\$0.00	\$3,997.60	\$3,997.60	\$799.52	\$1,678.99	\$6,476.
		SLAC Mech. Fab: Assembly Tech		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$3,997.60	\$0.00	\$0.00	\$0.
18	1.2.1.4.7	E-O Diagnostic			0	30 wks	\$0.00	\$363,000.00	\$97,716.40	\$460,716.40	\$41,323.28	\$152,535.89	\$654,575.
119	1.2.1.4.7.1	E-0 Physics	SLAC	ED&I	4	25 wks	\$0.00	\$0.00	\$85,000.00	\$85,000.00	\$17,000.00	\$51,000.00	\$153,000.
		SLAC Physicist -Scientist		ED&I	0	25 wks	\$0.00	\$0.00	\$0.00	\$85,000.00	\$0.00	\$0.00	\$0.
20	1.2.1.4.7.2	E-O Optics	SLAC	M&S	2	0 wks	\$0.00	\$87,000.00	\$0.00	\$87,000.00	\$5,220.00	\$23,055.00	\$115,275.
		SLAC M&S Total		M&S	0	87,000	\$0.00	\$0.00	\$0.00	\$87,000.00	\$0.00	\$0.00	\$0.
21	1.2.1.4.7.3	E-O Instruments	SLAC	M&S	2	0 wks	\$0.00	\$180,000.00	\$0.00	\$180,000.00	\$10,800.00	\$47,700.00	\$238,500.
		SLAC M&S Total		M&S	0	180,000	\$0.00	\$0.00	\$0.00	\$180,000.00	\$0.00	\$0.00	\$0.
22	1.2.1.4.7.4	E-O Vacuum	SLAC	M&S	2	0 wks	\$0.00	\$96,000.00	\$0.00	\$96,000.00	\$5,760.00	\$25,440.00	\$127,200
		SLAC M&S Total		M&S	0	96,000	\$0.00	\$0.00	\$0.00	\$96,000.00	\$0.00	\$0.00	\$0.
123	1.2.1.4.7.5	E-O Assembly	SLAC	B&H	3	3 wks	\$0.00	\$0.00	\$5,996.40	\$5,996.40	\$1,199.28	\$2,518.49	\$9,714.
		SLAC Mech. Fab: Assembly Tech		B&H	0	3 wks	\$0.00	\$0.00	\$0.00	\$5,996.40	\$0.00	\$0.00	\$0.
124	1.2.1.4.7.6	·	SLAC	ED&I	3	2 wks	\$0.00	\$0.00	\$6,720.00	\$6,720.00	\$1,344.00	\$2,822.40	\$10,886
		SLAC AD: Mech/Vacuum Engineer		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$6,720.00	\$0.00	\$0.00	\$0.
125	1.2.1.4.8	-			0	0 wks	\$0.00	\$140,000.00	\$0.00	\$140,000.00	\$8,400.00	\$22,260.00	\$170,660.0
126	1.2.1.4.8.1	Gating & Timing system gate generator	SLAC	M&S	1	0 wks	\$0.00	\$15,000.00	\$0.00	\$15,000.00	\$900.00	\$2,385.00	\$18,285.
	1.2.1.4.0.1	SLAC M&S Total	OL/10	M&S	0	15,000	\$0.00	\$0.00	\$0.00	\$15,000.00	\$0.00	\$0.00	\$0.
0.7	101100		01.40	M&S	0								
27	1.2.1.4.8.2		SLAC		1	0 wks	\$0.00	\$10,000.00	\$0.00	\$10,000.00	\$600.00	\$1,590.00	\$12,190.
		SLAC M&S Total		M&S	0	10,000	\$0.00	\$0.00	\$0.00	\$10,000.00	\$0.00	\$0.00	\$0.
28	1.2.1.4.8.3	·	SLAC	M&S	1	0 wks	\$0.00	\$5,000.00	\$0.00	\$5,000.00	\$300.00	\$795.00	\$6,095
		SLAC M&S Total		M&S	0	5,000	\$0.00	\$0.00	\$0.00	\$5,000.00	\$0.00	\$0.00	\$0.
29	1.2.1.4.8.4		SLAC	M&S	1	0 wks	\$0.00	\$5,000.00	\$0.00	\$5,000.00	\$300.00	\$795.00	\$6,095
		SLAC M&S Total		M&S	0	5,000	\$0.00	\$0.00	\$0.00	\$5,000.00	\$0.00	\$0.00	\$0.
30	1.2.1.4.8.5	·	SLAC	M&S	1	0 wks	\$0.00	\$5,000.00	\$0.00	\$5,000.00	\$300.00	\$795.00	\$6,095
		SLAC M&S Total		M&S	0	5,000	\$0.00	\$0.00	\$0.00	\$5,000.00	\$0.00	\$0.00	\$0.
31	1.2.1.4.8.6	Gated Intensified cameras	SLAC	M&S	1	0 wks	\$0.00	\$100,000.00	\$0.00	\$100,000.00	\$6,000.00	\$15,900.00	\$121,900
		SLAC M&S Total		M&S	0	100,000	\$0.00	\$0.00	\$0.00	\$100,000.00	\$0.00	\$0.00	\$0.

ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingonary Cast	Total Cost
432	1.2.1.5	Power Conversion	OBS	PHASE	0 Risk	179.8 wks	\$0.00	\$311,600.00	\$405,776.00	\$717,376.00	\$99,851.20	Contingency Cost \$204,306.80	\$1,021,534.0
433	1.2.1.5.1	New Power Supplies			0	102 wks	\$0.00	\$122,900.00	\$215,280.00	\$338,180.00	\$50,430.00	\$97,152.50	\$485,762.5
434	1.2.1.5.1.1	Solenoid Sol1 15KW	SLAC	M&S	2	0 wks	\$0.00	\$6,500.00	\$0.00	\$6,500.00	\$390.00	\$1,722.50	\$8,612.5
		SLAC M&S Total		M&S	0	6,500	\$0.00	\$0.00	\$0.00	\$6,500.00	\$0.00	\$0.00	\$0.0
435	1.2.1.5.1.2	Solenoid Sol2 30KW	SLAC	M&S	2	0 wks	\$0.00	\$13,000.00	\$0.00	\$13,000.00	\$780.00	\$3,445.00	\$17,225.0
	-	SLAC M&S Total		M&S	0	13,000	\$0.00	\$0.00	\$0.00	\$13,000.00	\$0.00	\$0.00	\$0.0
136	1.2.1.5.1.3	B0.5 Spect 2KW	SLAC	M&S	2	0 wks	\$0.00	\$5,000.00	\$0.00	\$5,000.00	\$300.00	\$1,325.00	\$6,625.0
		SLAC M&S Total		M&S	0	5,000	\$0.00	\$0.00	\$0.00	\$5,000.00	\$0.00	\$0.00	\$0.0
107	101511		21.40	M&S									
137	1.2.1.5.1.4	B1-2 15KW	SLAC		2	0 wks	\$0.00	\$6,500.00	\$0.00	\$6,500.00	\$390.00	\$1,722.50	\$8,612.5
		SLAC M&S Total		M&S	0	6,500	\$0.00	\$0.00	\$0.00	\$6,500.00	\$0.00	\$0.00	\$0.0
138	1.2.1.5.1.5	B3 Spect.15KW	SLAC	M&S	2	0 wks	\$0.00	\$6,500.00	\$0.00	\$6,500.00	\$390.00	\$1,722.50	\$8,612.5
		SLAC M&S Total		M&S	0	6,500	\$0.00	\$0.00	\$0.00	\$6,500.00	\$0.00	\$0.00	\$0.0
39	1.2.1.5.1.6	MCOR Bulk 10KW	SLAC	M&S	2	0 wks	\$0.00	\$32,500.00	\$0.00	\$32,500.00	\$1,950.00	\$8,612.50	\$43,062.5
		SLAC M&S Total		M&S	0	32,500	\$0.00	\$0.00	\$0.00	\$32,500.00	\$0.00	\$0.00	\$0.0
40	1.2.1.5.1.7	XCS1, 40V/12A MCOR	SLAC	M&S	2	0 wks	\$0.00	\$1,300.00	\$0.00	\$1,300.00	\$78.00	\$344.50	\$1,722.5
		SLAC M&S Total		M&S	0	1,300	\$0.00	\$0.00	\$0.00	\$1,300.00	\$0.00	\$0.00	\$0.
41	1.2.1.5.1.8	YCS1, 40V/12A MCOR	SLAC	M&S	2	0 wks	\$0.00	\$1,300.00	\$0.00	\$1,300.00	\$78.00	\$344.50	\$1,722.
		SLAC M&S Total		M&S	0	1,300	\$0.00	\$0.00	\$0.00	\$1,300.00	\$0.00	\$0.00	\$0.0
42	1.2.1.5.1.9	XCS2, 40V/12A MCOR	SLAC	M&S	2	0 wks	\$0.00	\$1,300.00	\$0.00	\$1,300.00	\$78.00	\$344.50	\$1,722.
		SLAC M&S Total		M&S	0	1,300	\$0.00	\$0.00	\$0.00	\$1,300.00	\$0.00	\$0.00	\$0.0
143	1.2.1.5.1.10	YCS2, 40V/12A MCOR	SLAC	M&S	2	0 wks	\$0.00	\$1,300.00	\$0.00	\$1,300.00	\$78.00	\$344.50	\$1,722.
+45	1.2.1.3.1.10	SLAC M&S Total	SLAC	M&S		1,300	\$0.00	\$0.00	\$0.00	\$1,300.00	\$0.00	\$0.00	\$0.
					0		,		,,,,,				
144	1.2.1.5.1.11	XCS3, 50V/30A MCOR	SLAC	M&S	2	0 wks	\$0.00	\$1,800.00	\$0.00	\$1,800.00	\$108.00	\$477.00	\$2,385.
		SLAC M&S Total		M&S	0	1,800	\$0.00	\$0.00	\$0.00	\$1,800.00	\$0.00	\$0.00	\$0.0
145	1.2.1.5.1.12	YCS3, 50V/30A MCOR	SLAC	M&S	2	0 wks	\$0.00	\$1,800.00	\$0.00	\$1,800.00	\$108.00	\$477.00	\$2,385.0
		SLAC M&S Total		M&S	0	1,800	\$0.00	\$0.00	\$0.00	\$1,800.00	\$0.00	\$0.00	\$0.0
46	1.2.1.5.1.13	XCS4, 50V/30A MCOR	SLAC	M&S	2	0 wks	\$0.00	\$1,800.00	\$0.00	\$1,800.00	\$108.00	\$477.00	\$2,385.
		SLAC M&S Total		M&S	0	1,800	\$0.00	\$0.00	\$0.00	\$1,800.00	\$0.00	\$0.00	\$0.
47	1.2.1.5.1.14	YCS4, 50V/30A MCOR	SLAC	M&S	2	0 wks	\$0.00	\$1,800.00	\$0.00	\$1,800.00	\$108.00	\$477.00	\$2,385.
		SLAC M&S Total		M&S	0	1,800	\$0.00	\$0.00	\$0.00	\$1,800.00	\$0.00	\$0.00	\$0.
48	1.2.1.5.1.15	XCS5, 50V/30A MCOR	SLAC	M&S	2	0 wks	\$0.00	\$1,800.00	\$0.00	\$1,800.00	\$108.00	\$477.00	\$2,385.
		SLAC M&S Total		M&S	0	1,800	\$0.00	\$0.00	\$0.00	\$1,800.00	\$0.00	\$0.00	\$0.0
49	1.2.1.5.1.16	YCS5, 50V/30A MCOR	SLAC	M&S	2	0 wks	\$0.00	\$1,800.00	\$0.00	\$1,800.00	\$108.00	\$477.00	\$2,385.
0		SLAC M&S Total	3276	M&S		1,800	\$0.00	\$0.00	\$0.00	\$1,800.00	\$0.00	\$0.00	\$0.0
					0								
450	1.2.1.5.1.17	QE01, 40V/12A MCOR	SLAC	M&S	2	0 wks	\$0.00	\$1,300.00	\$0.00	\$1,300.00	\$78.00	\$344.50	\$1,722.5

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ID	CWBS	Task Name SLAC M&S Total	OBS	PHASE M&S	Risk	Units 1,300	PED (Direct)	M&S (Direct) \$0.00	Labor (Direct)	Direct Cost \$1,300.00	Overhead Cost \$0.00	Contingency Cost \$0.00	Total Cost \$0.00
					0								
451	1.2.1.5.1.18	QE02, 40V/12A MCOR	SLAC	M&S	2	0 wks	\$0.00	\$1,300.00	\$0.00	\$1,300.00	\$78.00	\$344.50	\$1,722.50
		SLAC M&S Total		M&S	0	1,300	\$0.00	\$0.00	\$0.00	\$1,300.00	\$0.00	\$0.00	\$0.00
452	1.2.1.5.1.19	XCS6, 50V/30A MCOR	SLAC	M&S	2	0 wks	\$0.00	\$1,800.00	\$0.00	\$1,800.00	\$108.00	\$477.00	\$2,385.00
		SLAC M&S Total		M&S	0	1,800	\$0.00	\$0.00	\$0.00	\$1,800.00	\$0.00	\$0.00	\$0.00
453	1.2.1.5.1.20	QE03, 40V/12A MCOR	SLAC	M&S	2	0 wks	\$0.00	\$1,300.00	\$0.00	\$1,300.00	\$78.00	\$344.50	\$1,722.50
		SLAC M&S Total		M&S	0	1,300	\$0.00	\$0.00	\$0.00	\$1,300.00	\$0.00	\$0.00	\$0.00
454	1.2.1.5.1.21	YCS6, 50V/30A MCOR	SLAC	M&S	2	0 wks	\$0.00	\$1,800.00	\$0.00	\$1,800.00	\$108.00	\$477.00	\$2,385.00
		SLAC M&S Total		M&S	0	1,800	\$0.00	\$0.00	\$0.00	\$1,800.00	\$0.00	\$0.00	\$0.00
455	1.2.1.5.1.22	QE04, 40V/12A MCOR	SLAC	M&S	2	0 wks	\$0.00	\$1,300.00	\$0.00	\$1,300.00	\$78.00	\$344.50	\$1,722.50
		SLAC M&S Total		M&S	0	1,300	\$0.00	\$0.00	\$0.00	\$1,300.00	\$0.00	\$0.00	\$0.00
456	1.2.1.5.1.23	XCS7, 50V/30A MCOR	SLAC	M&S	2	0 wks	\$0.00	\$1,800.00	\$0.00	\$1,800.00	\$108.00	\$477.00	\$2,385.00
		SLAC M&S Total		M&S	0	1,800	\$0.00	\$0.00	\$0.00	\$1,800.00	\$0.00	\$0.00	\$0.00
457	1.2.1.5.1.24	YCS7, 50V/30A MCOR	SLAC	M&S	2	0 wks	\$0.00	\$1,800.00	\$0.00	\$1,800.00	\$108.00	\$477.00	\$2,385.00
		SLAC M&S Total		M&S	0	1,800	\$0.00	\$0.00	\$0.00	\$1,800.00	\$0.00	\$0.00	\$0.00
458	1.2.1.5.1.25	XCS8, 50V/30A MCOR	SLAC	M&S	2	0 wks	\$0.00	\$1,800.00	\$0.00	\$1,800.00	\$108.00	\$477.00	\$2,385.00
		SLAC M&S Total		M&S	0	1,800	\$0.00	\$0.00	\$0.00	\$1,800.00	\$0.00	\$0.00	\$0.00
459	1.2.1.5.1.26	YCS8, 50V/30A MCOR	SLAC	M&S	2	0 wks	\$0.00	\$1,800.00	\$0.00	\$1,800.00	\$108.00	\$477.00	\$2,385.00
		SLAC M&S Total		M&S	0	1,800	\$0.00	\$0.00	\$0.00	\$1,800.00	\$0.00	\$0.00	\$0.00
460	1.2.1.5.1.27	QM01, 40V/12A MCOR	SLAC	M&S	2	0 wks	\$0.00	\$1,300.00	\$0.00	\$1,300.00	\$78.00	\$344.50	\$1,722.50
		SLAC M&S Total		M&S	0	1,300	\$0.00	\$0.00	\$0.00	\$1,300.00	\$0.00	\$0.00	\$0.00
461	1.2.1.5.1.28	QM02, 40V/12A MCOR	SLAC	M&S	2	0 wks	\$0.00	\$1,300.00	\$0.00	\$1,300.00	\$78.00	\$344.50	\$1,722.50
		SLAC M&S Total		M&S	0	1,300	\$0.00	\$0.00	\$0.00	\$1,300.00	\$0.00	\$0.00	\$0.00
462	1.2.1.5.1.29	B01T, 50V/30A MCOR	SLAC	M&S	2	0 wks	\$0.00	\$1,800.00	\$0.00	\$1,800.00	\$108.00	\$477.00	\$2,385.00
		SLAC M&S Total		M&S	0	1,800	\$0.00	\$0.00	\$0.00	\$1,800.00	\$0.00	\$0.00	\$0.00
463	1.2.1.5.1.30	B02T, 50V/30A MCOR	SLAC	M&S	2	0 wks	\$0.00	\$1,800.00	\$0.00	\$1,800.00	\$108.00	\$477.00	\$2,385.00
		SLAC M&S Total		M&S	0	1,800	\$0.00	\$0.00	\$0.00	\$1,800.00	\$0.00	\$0.00	\$0.00
464	1.2.1.5.1.31	QB, 40V/12A MCOR	SLAC	M&S	2	0 wks	\$0.00	\$1,300.00	\$0.00	\$1,300.00	\$78.00	\$344.50	\$1,722.50
		SLAC M&S Total		M&S	0	1,300	\$0.00	\$0.00	\$0.00	\$1,300.00	\$0.00	\$0.00	\$0.00
465	1.2.1.5.1.32	QM03, 40V/12A MCOR	SLAC	M&S	2	0 wks	\$0.00	\$1,300.00	\$0.00	\$1,300.00	\$78.00	\$344.50	\$1,722.50
		SLAC M&S Total		M&S	0	1,300	\$0.00	\$0.00	\$0.00	\$1,300.00	\$0.00	\$0.00	\$0.00
466	1.2.1.5.1.33	YCS9V, 50V/30A MCOR	SLAC	M&S	2	0 wks	\$0.00	\$1,800.00	\$0.00	\$1,800.00	\$108.00	\$477.00	\$2,385.00
		SLAC M&S Total		M&S	0	1,800	\$0.00	\$0.00	\$0.00	\$1,800.00	\$0.00	\$0.00	\$0.00
467	1.2.1.5.1.34	QM04, 40V/12A MCOR	SLAC	M&S	2	0 wks	\$0.00	\$1,300.00	\$0.00	\$1,300.00	\$78.00	\$344.50	\$1,722.50
		SLAC M&S Total		M&S	0	1,300	\$0.00	\$0.00	\$0.00	\$1,300.00	\$0.00	\$0.00	\$0.00
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ID		Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
468	1.2.1.5.1.35	HCS9H, 50V/30A MCOR	SLAC	M&S	2	0 wks	\$0.00	\$1,800.00	\$0.00	\$1,800.00	\$108.00	\$477.00	\$2,385.0
		SLAC M&S Total		M&S	0	1,800	\$0.00	\$0.00	\$0.00	\$1,800.00	\$0.00	\$0.00	\$0.0
169	1.2.1.5.1.36	XCS10, 50V/30A MCOR	SLAC	M&S	2	0 wks	\$0.00	\$1,800.00	\$0.00	\$1,800.00	\$108.00	\$477.00	\$2,385.0
		SLAC M&S Total		M&S	0	1,800	\$0.00	\$0.00	\$0.00	\$1,800.00	\$0.00	\$0.00	\$0.0
170	1.2.1.5.1.37	YCS10, 50V/30A MCOR	SLAC	M&S	2	0 wks	\$0.00	\$1,800.00	\$0.00	\$1,800.00	\$108.00	\$477.00	\$2,385.0
		SLAC M&S Total		M&S	0	1,800	\$0.00	\$0.00	\$0.00	\$1,800.00	\$0.00	\$0.00	\$0.0
71	1.2.1.5.1.38	XCS11, 50V/30A MCOR	SLAC	M&S	2	0 wks	\$0.00	\$1,800.00	\$0.00	\$1,800.00	\$108.00	\$477.00	\$2,385.
		SLAC M&S Total		M&S	0	1,800	\$0.00	\$0.00	\$0.00	\$1,800.00	\$0.00	\$0.00	\$0.0
172	1.2.1.5.1.39	YCS11, 50V/30A MCOR	SLAC	M&S	2	0 wks	\$0.00	\$1,800.00	\$0.00	\$1,800.00	\$108.00	\$477.00	\$2,385.
		SLAC M&S Total		M&S	0	1,800	\$0.00	\$0.00	\$0.00	\$1,800.00	\$0.00	\$0.00	\$0.0
73	1.2.1.5.1.40	Planning (PS and Cable Plant)	SLAC	ED&I	2	20 wks	\$0.00	\$0.00	\$60,000.00	\$60,000.00	\$12,000.00	\$18,000.00	\$90,000.
		SLAC PCD:Engineer		ED&I	0	20 wks	\$0.00	\$0.00	\$0.00	\$60,000.00	\$0.00	\$0.00	\$0.0
74	1.2.1.5.1.40	Planning (PS and Cable Plant)	SLAC	B&H	2	25 wks	\$0.00	\$0.00	\$43,840.00	\$43,840.00	\$8,768.00	\$13,152.00	\$65,760.
		SLAC PCD:Technician		B&H	0	25 wks	\$0.00	\$0.00	\$0.00	\$43,840.00	\$0.00	\$0.00	\$0.0
75	1.2.1.5.1.41	System Dwgs (El, WD, Profile for Cable Plant)	SLAC	ED&I	2	32 wks	\$0.00	\$0.00	\$61,440.00	\$61,440.00	\$12,288.00	\$18,432.00	\$92,160.
		SLAC PCD:Coordinator Associate		ED&I	0	32 wks	\$0.00	\$0.00	\$0.00	\$61,440.00	\$0.00	\$0.00	\$0.
76	1.2.1.5.1.41	System Dwgs (El, WD, Profile for Cable Plant)	SLAC	B&H	2	25 wks	\$0.00	\$0.00	\$50,000.00	\$50,000.00	\$10,000.00	\$15,000.00	\$75,000
		SLACL PCD:Inst-Cabling-Elec Fab		В&Н	0	25 wks	\$0.00	\$0.00	\$0.00	\$50,000.00	\$0.00	\$0.00	\$0.
77	1.2.1.5.2	Cntrls/Transductors/Switches			0	0 wks	\$0.00	\$32,100.00	\$0.00	\$32,100.00	\$1,926.00	\$8,506.50	\$42,532.
78	1.2.1.5.2.1	MCOR Chassis	SLAC	B&H	2	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
		SLAC PCD:Technician		В&Н	0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
179	1.2.1.5.2.1	MCOR Chassis	SLAC	ED&I	2	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
		SLAC PCD:Engineer		ED&I	0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
180	1.2.1.5.2.1	MCOR Chassis	SLAC	M&S	2	0 wks	\$0.00	\$10,000.00	\$0.00	\$10,000.00	\$600.00	\$2,650.00	\$13,250
	-	SLAC M&S Total		M&S	0	10,000	\$0.00	\$0.00	\$0.00	\$10,000.00	\$0.00	\$0.00	\$0.
81	1.2.1.5.2.2	Bitbus Controller	SLAC	B&H	2	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
	1.2.1.0.2.2	SLAC PCD:Technician	OEAO	B&H	0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
82	1.2.1.5.2.2	Bitbus Controller	SLAC	ED&I	2	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
		SLAC PCD:Engineer		ED&I	0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
83	1.2.1.5.2.2	Bitbus Controller	SLAC	M&S	2	0 wks	\$0.00	\$9,000.00	\$0.00	\$9,000.00	\$540.00	\$2,385.00	\$11,925
		SLAC M&S Total		M&S	0	9,000	\$0.00	\$0.00	\$0.00	\$9,000.00	\$0.00	\$0.00	\$0.
84	1.2.1.5.2.3	Klixon/Run Safe Box	SLAC	B&H	2	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
		SLAC PCD:Technician		B&H	0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
85	1.2.1.5.2.3	Klixon/Run Safe Box	SLAC	ED&I	2	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
		SLAC PCD:Engineer		ED&I	0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.

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ID		Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
486	1.2.1.5.2.3	Klixon/Run Safe Box	SLAC	M&S	2	0 wks	\$0.00	\$7,500.00	\$0.00	\$7,500.00	\$450.00	\$1,987.50	\$9,937.5
		SLAC M&S Total		M&S	0	7,500	\$0.00	\$0.00	\$0.00	\$7,500.00	\$0.00	\$0.00	\$0.0
487	1.2.1.5.2.4	150 A Transductor	SLAC	B&H	2	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
		SLAC PCD:Technician		B&H	0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
488	1.2.1.5.2.4	150 A Transductor	SLAC	ED&I	2	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
-		SLAC PCD:Engineer		ED&I	0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
489	1.2.1.5.2.4	150 A Transductor	SLAC	M&S	2	0 wks	\$0.00	\$1,400.00	\$0.00	\$1,400.00	\$84.00	\$371.00	\$1,855.0
		SLAC M&S Total		M&S	0	1,400	\$0.00	\$0.00	\$0.00	\$1,400.00	\$0.00	\$0.00	\$0.0
490	1.2.1.5.2.5	300 A Transductor	SLAC	M&S	2	0 wks	\$0.00	\$1,400.00	\$0.00	\$1,400.00	\$84.00	\$371.00	\$1,855.0
		SLAC M&S Total		M&S	0	1,400	\$0.00	\$0.00	\$0.00	\$1,400.00	\$0.00	\$0.00	\$0.0
491	1.2.1.5.2.6	600 A Transductor	SLAC	M&S	2	0 wks	\$0.00	\$2,800.00	\$0.00	\$2,800.00	\$168.00	\$742.00	\$3,710.0
		SLAC M&S Total		M&S	0	2,800	\$0.00	\$0.00	\$0.00	\$2,800.00	\$0.00	\$0.00	\$0.0
492	1.2.1.5.3	Racks, Cables, Trays		Mao	0	77.8 wks	\$0.00	\$156,600.00	\$190,496.00	\$347,096.00	\$47,495.20	\$98,647.80	\$493,239.0
493	1.2.1.5.3.1	Rack, Single Bay (DC and I&C)	SLAC	B&H	2	1 wk	\$0.00	\$0.00	\$2,720.00	\$2,720.00	\$544.00	\$816.00	\$4,080.0
493	1.2.1.5.3.1		SLAC				•				,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	,,,,,,	
		SLAC T&M Crafts - Union Electrician		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,720.00	\$0.00	\$0.00	\$0.0
94	1.2.1.5.3.1	Rack, Single Bay (DC and I&C)	SLAC	M&S	2	0 wks	\$0.00	\$25,200.00	\$0.00	\$25,200.00	\$1,512.00	\$6,678.00	\$33,390.0
		SLAC M&S Total		M&S	0	25,200	\$0.00	\$0.00	\$0.00	\$25,200.00	\$0.00	\$0.00	\$0.0
195	1.2.1.5.3.2	Rack, Double bay	SLAC	B&H	2	2.13 wks	\$0.00	\$0.00	\$5,793.60	\$5,793.60	\$1,158.72	\$1,738.08	\$8,690.4
		SLAC T&M Crafts - Union Electrician		B&H	0	2.13 wks	\$0.00	\$0.00	\$0.00	\$5,793.60	\$0.00	\$0.00	\$0.0
196	1.2.1.5.3.2	Rack, Double bay	SLAC	M&S	2	0 wks	\$0.00	\$22,500.00	\$0.00	\$22,500.00	\$1,350.00	\$5,962.50	\$29,812.5
		SLAC M&S Total		M&S	0	22,500	\$0.00	\$0.00	\$0.00	\$22,500.00	\$0.00	\$0.00	\$0.0
197	1.2.1.5.3.3	AC Pwr to rack(DC and I&C)	SLAC	B&H	2	3.13 wks	\$0.00	\$0.00	\$8,513.60	\$8,513.60	\$1,702.72	\$2,554.08	\$12,770.4
		SLAC T&M Crafts - Union Electrician		B&H	0	3.13 wks	\$0.00	\$0.00	\$0.00	\$8,513.60	\$0.00	\$0.00	\$0.0
198	1.2.1.5.3.3	AC Pwr to rack(DC and I&C)	SLAC	M&S	2	0 wks	\$0.00	\$25,000.00	\$0.00	\$25,000.00	\$1,500.00	\$6,625.00	\$33,125.0
		SLAC M&S Total		M&S	0	25,000	\$0.00	\$0.00	\$0.00	\$25,000.00	\$0.00	\$0.00	\$0.0
199	1.2.1.5.3.4	Earthquake racks(DC and I&C)	SLAC	B&H	2	0.67 wks	\$0.00	\$0.00	\$1,822.40	\$1,822.40	\$364.48	\$546.72	\$2,733.6
		SLAC T&M Crafts - Union Electrician		B&H	0	0.67 wks	\$0.00	\$0.00	\$0.00	\$1,822.40	\$0.00	\$0.00	\$0.0
500	1.2.1.5.3.4		SLAC	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$265.00	\$1,325.0
	1.2.1.3.3.4	SLAC M&S Total	JEAC	M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.0
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01	1.2.1.5.3.5	, , , ,	SLAC	B&H	2	0.5 wks	\$0.00	\$0.00	\$1,360.00	\$1,360.00	\$272.00	\$408.00	\$2,040.0
		SLAC T&M Crafts - Union Electrician		B&H	0	0.5 wks	\$0.00	\$0.00	\$0.00	\$1,360.00	\$0.00	\$0.00	\$0.0
502	1.2.1.5.3.5	20A 2P Latching NR Contactor(DC and &C)	SLAC	M&S	2	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$180.00	\$795.00	\$3,975.0
		SLAC M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0.0
503	1.2.1.5.3.6	200A 2P Latching NR Contactor (DC and I&C)	SLAC	B&H	2	1.13 wks	\$0.00	\$0.00	\$3,073.60	\$3,073.60	\$614.72	\$922.08	\$4,610.4
		SLAC T&M Crafts - Union Electrician		B&H	0	1.13 wks	\$0.00	\$0.00	\$0.00	\$3,073.60	\$0.00	\$0.00	\$0.0

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ID		Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
04	1.2.1.5.3.6	200A 2P Latching NR Contactor (DC and I&C)	SLAC	M&S	2	0 wks	\$0.00	\$21,000.00	\$0.00	\$21,000.00	\$1,260.00	\$5,565.00	\$27,825.
		SLAC M&S Total		M&S	0	21,000	\$0.00	\$0.00	\$0.00	\$21,000.00	\$0.00	\$0.00	\$0.0
05	1.2.1.5.3.7	20 - 200A Contactor Control (DC and I&C)	SLAC	B&H	2	0.83 wks	\$0.00	\$0.00	\$2,257.60	\$2,257.60	\$451.52	\$677.28	\$3,386.
		SLAC T&M Crafts - Union Electrician		B&H	0	0.83 wks	\$0.00	\$0.00	\$0.00	\$2,257.60	\$0.00	\$0.00	\$0.
06	1.2.1.5.3.7	20 - 200A Contactor Control (DC and I&C)	SLAC	M&S	2	0 wks	\$0.00	\$10,000.00	\$0.00	\$10,000.00	\$600.00	\$2,650.00	\$13,250.
		SLAC M&S Total		M&S	0	10,000	\$0.00	\$0.00	\$0.00	\$10,000.00	\$0.00	\$0.00	\$0.
07	1.2.1.5.3.8	Corr, Low Power Trims, Bipolar	SLAC	B&H	2	0.83 wks	\$0.00	\$0.00	\$2,257.60	\$2,257.60	\$451.52	\$677.28	\$3,386
		SLAC T&M Crafts - Union Electrician		B&H	0	0.83 wks	\$0.00	\$0.00	\$0.00	\$2,257.60	\$0.00	\$0.00	\$0
08	1.2.1.5.3.8	Corr, Low Power Trims, Bipolar	SLAC	M&S	2	0 wks	\$0.00	\$1,500.00	\$0.00	\$1,500.00	\$90.00	\$397.50	\$1,987
		SLAC M&S Total		M&S	0	1,500	\$0.00	\$0.00	\$0.00	\$1,500.00	\$0.00	\$0.00	\$0
09	1.2.1.5.3.9		SLAC	B&H	2	0.4 wks	\$0.00	\$0.00	\$1,088.00	\$1,088.00	\$217.60	\$326.40	\$1,632
		SLAC T&M Crafts - Union Electrician		B&H	0	0.4 wks	\$0.00	\$0.00	\$0.00	\$1,088.00	\$0.00	\$0.00	\$0
10	1.2.1.5.3.9		SLAC	M&S	2	0.4 wks	\$0.00	\$400.00	\$0.00	\$400.00	\$24.00	\$106.00	\$530
	1.2.1.3.3.9	SLAC M&S Total	JEAC	M&S	0	400	\$0.00	\$0.00	\$0.00	\$400.00	\$0.00	\$0.00	\$000
							, , , , ,		, , , , , ,				
1	1.2.1.5.3.10	1-2/C#8 AWG	SLAC	B&H	2	3.33 wks	\$0.00	\$0.00	\$9,057.60	\$9,057.60	\$1,811.52	\$2,717.28	\$13,586
		SLAC T&M Crafts - Union Electrician		B&H	0	3.33 wks	\$0.00	\$0.00	\$0.00	\$9,057.60	\$0.00	\$0.00	\$
2	1.2.1.5.3.10	1-2/C#8 AWG	SLAC	M&S	2	0 wks	\$0.00	\$8,200.00	\$0.00	\$8,200.00	\$492.00	\$2,173.00	\$10,86
		SLAC M&S Total		M&S	0	8,200	\$0.00	\$0.00	\$0.00	\$8,200.00	\$0.00	\$0.00	\$6
13	1.2.1.5.3.11	1/C#600kcmil	SLAC	B&H	2	3.63 wks	\$0.00	\$0.00	\$9,873.60	\$9,873.60	\$1,974.72	\$2,962.08	\$14,81
		SLAC T&M Crafts - Union Electrician		B&H	0	3.63 wks	\$0.00	\$0.00	\$0.00	\$9,873.60	\$0.00	\$0.00	\$0
14	1.2.1.5.3.12	Cable lugs, Splices, Etc	SLAC	M&S	2	0 wks	\$0.00	\$500.00	\$0.00	\$500.00	\$30.00	\$132.50	\$66
		SLAC M&S Total		M&S	0	500	\$0.00	\$0.00	\$0.00	\$500.00	\$0.00	\$0.00	\$0
15	1.2.1.5.3.13	18"W 4"D G Stl Cable Tray (DC and l&C)	SLAC	B&H	2	3.71 wks	\$0.00	\$0.00	\$10,091.20	\$10,091.20	\$2,018.24	\$3,027.36	\$15,136
		SLAC T&M Crafts - Union Electrician		B&H	0	3.71 wks	\$0.00	\$0.00	\$0.00	\$10,091.20	\$0.00	\$0.00	\$0
16	1.2.1.5.3.13	18"W 4"D G Stl Cable Tray (DC and I&C)	SLAC	M&S	2	0 wks	\$0.00	\$19,000.00	\$0.00	\$19,000.00	\$1,140.00	\$5,035.00	\$25,17
		SLAC M&S Total		M&S	0	19,000	\$0.00	\$0.00	\$0.00	\$19,000.00	\$0.00	\$0.00	\$0
7	1.2.1.5.3.14		SLAC	B&H	2	0.83 wks	\$0.00	\$0.00	\$2,257.60	\$2,257.60	\$451.52	\$677.28	\$3,386
_	1.2.1.0.0.14	SLAC T&M Crafts - Union Electrician	0210	B&H	0	0.83 wks	\$0.00	\$0.00	\$0.00	\$2,257.60	\$0.00	\$0.00	\$0,00
0	1015011		81.40		2				, , , , ,			, , , , ,	
8	1.2.1.5.3.14		SLAC	M&S	-	0 wks	\$0.00	\$6,000.00	\$0.00	\$6,000.00	\$360.00	\$1,590.00	\$7,95
		SLAC M&S Total		M&S	0	6,000	\$0.00	\$0.00	\$0.00	\$6,000.00	\$0.00	\$0.00	\$
9	1.2.1.5.3.15	Trapeze Cable Tray Supports (DC and I&C)	SLAC	B&H	2	3.75 wks	\$0.00	\$0.00	\$10,200.00	\$10,200.00	\$2,040.00	\$3,060.00	\$15,30
		SLAC T&M Crafts - Union Electrician		B&H	0	3.75 wks	\$0.00	\$0.00	\$0.00	\$10,200.00	\$0.00	\$0.00	\$
20	1.2.1.5.3.15	Trapeze Cable Tray Supports (DC and I&C)	SLAC	M&S	2	0 wks	\$0.00	\$7,000.00	\$0.00	\$7,000.00	\$420.00	\$1,855.00	\$9,27
		SLAC M&S Total		M&S	0	7,000	\$0.00	\$0.00	\$0.00	\$7,000.00	\$0.00	\$0.00	\$0
21	1.2.1.5.3.16	Cable Tray Grounding (DC and I&C, \$1.8/ft)	SLAC	B&H	2	1.33 wks	\$0.00	\$0.00	\$3,617.60	\$3.617.60	\$723.52	\$1.085.28	\$5,426

ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		SLAC T&M Crafts - Union Electrician		B&H	0	1.33 wks	\$0.00	\$0.00	\$0.00	\$3,617.60	\$0.00	\$0.00	\$0.
22	1.2.1.5.3.16	Cable Tray Grounding (DC and I&C, \$1.8/ft)	SLAC	M&S	2	0 wks	\$0.00	\$3,600.00	\$0.00	\$3,600.00	\$216.00	\$954.00	\$4,770.
		SLAC M&S Total		M&S	0	3,600	\$0.00	\$0.00	\$0.00	\$3,600.00	\$0.00	\$0.00	\$0.
23	1.2.1.5.3.17	Gnd Jumpers (DC and I&C)	SLAC	B&H	2	1 wk	\$0.00	\$0.00	\$2,720.00	\$2,720.00	\$544.00	\$816.00	\$4,080
		SLAC T&M Crafts - Union Electrician		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,720.00	\$0.00	\$0.00	\$0
24	1.2.1.5.3.17	Gnd Jumpers (DC and I&C)	SLAC	M&S	2	0 wks	\$0.00	\$1,500.00	\$0.00	\$1,500.00	\$90.00	\$397.50	\$1,987
		SLAC M&S Total		M&S	0	1,500	\$0.00	\$0.00	\$0.00	\$1,500.00	\$0.00	\$0.00	\$0
25	1.2.1.5.3.18	Conduits for Linac penetrations, 4"ID	SLAC	B&H	2	1.6 wks	\$0.00	\$0.00	\$4,352.00	\$4,352.00	\$870.40	\$1,305.60	\$6,528
		SLAC T&M Crafts - Union Electrician		B&H	0	1.6 wks	\$0.00	\$0.00	\$0.00	\$4,352.00	\$0.00	\$0.00	\$0
26	1.2.1.5.3.18	Conduits for Linac penetrations, 4"ID	SLAC	M&S	2	0 wks	\$0.00	\$1,200.00	\$0.00	\$1,200.00	\$72.00	\$318.00	\$1,590
		SLAC M&S Total		M&S	0	1,200	\$0.00	\$0.00	\$0.00	\$1,200.00	\$0.00	\$0.00	\$0
27	1.2.1.5.3.19	Area Layouts/Raceways/Supports (DC and I&C)	SLAC	ED&I	2	16 wks	\$0.00	\$0.00	\$48,000.00	\$48,000.00	\$9,600.00	\$14,400.00	\$72,000
		SLAC PCD:Engineer		ED&I	0	16 wks	\$0.00	\$0.00	\$0.00	\$48,000.00	\$0.00	\$0.00	\$0
28	1.2.1.5.3.20	-	SLAC	ED&I	2	24 wks	\$0.00	\$0.00	\$46,080.00	\$46,080.00	\$9,216.00	\$13,824.00	\$69,12
	1.2.1.0.0.20	,	OLAG	ED&I			\$0.00	\$0.00	\$0.00	\$46,080.00	\$0.00	\$0.00	\$
		SLAC PCD:Coordinator Associate			0	24 wks							
29	1.2.1.5.3.21	Captar Documentation (DC and I&C)	SLAC	ED&I	2	8 wks	\$0.00	\$0.00	\$15,360.00	\$15,360.00	\$3,072.00	\$4,608.00	\$23,04
		SLAC PCD:Coordinator Associate		ED&I	0	8 wks	\$0.00	\$0.00	\$0.00	\$15,360.00	\$0.00	\$0.00	\$6
30	1.2.1.6	Magnets			0	150.9 wks	\$0.00	\$92,001.00	\$372,047.36	\$464,048.36	\$79,929.53	\$158,758.44	\$702,736
31	1.2.1.6.1	Bend Magnets - 5D7.1			0	12 wks	\$0.00	\$15,000.00	\$33,820.16	\$48,820.16	\$7,664.03	\$14,121.05	\$70,605
32	1.2.1.6.1.1	Magnet Materials	SLAC	M&S	2	0 wks	\$0.00	\$15,000.00	\$0.00	\$15,000.00	\$900.00	\$3,975.00	\$19,87
		SLAC M&S Total		M&S	0	15,000	\$0.00	\$0.00	\$0.00	\$15,000.00	\$0.00	\$0.00	\$0
33	1.2.1.6.1.2	Magnet Machining	SLAC	B&H	2	8 wks	\$0.00	\$0.00	\$25,600.00	\$25,600.00	\$5,120.00	\$7,680.00	\$38,40
		SLAC Mech. Fab: Machine Shop		B&H	0	8 wks	\$0.00	\$0.00	\$0.00	\$25,600.00	\$0.00	\$0.00	\$
34	1.2.1.6.1.3	Mag Coil Winding	SLAC	B&H	2	2 wks	\$0.00	\$0.00	\$3,997.60	\$3,997.60	\$799.52	\$1,199.28	\$5,99
		SLAC Mech. Fab: Assembly Tech		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$3,997.60	\$0.00	\$0.00	\$
35	1.2.1.6.1.4	Magnet Assembly	SLAC	B&H	2	1.2 wks	\$0.00	\$0.00	\$2,398.56	\$2,398.56	\$479.71	\$719.57	\$3,59
		SLAC Mech. Fab: Assembly Tech		B&H	0	1.2 wks	\$0.00	\$0.00	\$0.00	\$2,398.56	\$0.00	\$0.00	\$
36	1.2.1.6.1.5	Fiducialization	SLAC	B&H	2	0.4 wks	\$0.00	\$0.00	\$912.00	\$912.00	\$182.40	\$273.60	\$1,36
		SLAC Metrology:Eng.& Surveyors		B&H	0	0.4 wks	\$0.00	\$0.00	\$0.00	\$912.00	\$0.00	\$0.00	\$
37	1.2.1.6.1.6		SLAC	B&H	2	0.4 wks	\$0.00	\$0.00	\$912.00	\$912.00	\$182.40	\$273.60	\$1,36
	1.2.1.0.1.0	SLAC Metrology:Eng.& Surveyors	SLAC	B&H	0	0.4 wks	\$0.00	\$0.00	\$0.00	\$912.00	\$0.00	\$0.00	\$1,30
38	1.2.1.6.2	Quadrupoles - 1Q5.6		חמם	0	45 wks	\$0.00	\$45,000.00	\$123,390.72	\$168,390.72	\$27,378.14	\$48,942.22	\$244,71
		·	61.40	Mag									
39	1.2.1.6.2.1	Magnet Materials	SLAC	M&S	2	0 wks	\$0.00	\$45,000.00	\$0.00	\$45,000.00	\$2,700.00	\$11,925.00	\$59,62
		SLAC M&S Total		M&S	0	45,000	\$0.00	\$0.00	\$0.00	\$45,000.00	\$0.00	\$0.00	\$0
40	1.2.1.6.2.2	Magnet Machining	SLAC	B&H	2	27 wks	\$0.00	\$0.00	\$86,400.00	\$86,400,00	\$17,280.00	\$25,920,00	\$129,600

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ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		SLAC Mech. Fab: Machine Shop		B&H	0	27 wks	\$0.00	\$0.00	\$0.00	\$86,400.00	\$0.00	\$0.00	\$0.
41	1.2.1.6.2.3	Mag Coil Winding	SLAC	B&H	2	9 wks	\$0.00	\$0.00	\$17,989.20	\$17,989.20	\$3,597.84	\$5,396.76	\$26,983.
		SLAC Mech. Fab: Assembly Tech		B&H	0	9 wks	\$0.00	\$0.00	\$0.00	\$17,989.20	\$0.00	\$0.00	\$0.
42	1.2.1.6.2.4	Magnet Assembly	SLAC	B&H	2	5.4 wks	\$0.00	\$0.00	\$10,793.52	\$10,793.52	\$2,158.70	\$3,238.06	\$16,190.
\dashv		SLAC Mech. Fab: Assembly Tech		B&H	0	5.4 wks	\$0.00	\$0.00	\$0.00	\$10,793.52	\$0.00	\$0.00	\$0.
43	1.2.1.6.2.5	Fiducialization	SLAC	B&H	2	1.8 wks	\$0.00	\$0.00	\$4,104.00	\$4,104.00	\$820.80	\$1,231.20	\$6,156
\dashv		SLAC Metrology:Eng.& Surveyors		B&H	0	1.8 wks	\$0.00	\$0.00	\$0.00	\$4,104.00	\$0.00	\$0.00	\$0
44	1.2.1.6.2.6	Mag Measure	SLAC	B&H	2	1.8 wks	\$0.00	\$0.00	\$4,104.00	\$4,104.00	\$820.80	\$1,231.20	\$6,156
\dashv		SLAC Metrology:Eng.& Surveyors		B&H	0	1.8 wks	\$0.00	\$0.00	\$0.00	\$4,104.00	\$0.00	\$0.00	\$0
15	1.2.1.6.3	Gun Solenoid			0	54.5 wks	\$0.00	\$5,000.00	\$113,698.80	\$118,698.80	\$23,039.76	\$58,198.61	\$199,937
46	1.2.1.6.3.1	Magnet Materials	SLAC	M&S	1	0 wks	\$0.00	\$5,000.00	\$0.00	\$5,000.00	\$300.00	\$795.00	\$6,095
\dashv		SLAC M&S Total		M&S	0	5,000	\$0.00	\$0.00	\$0.00	\$5,000.00	\$0.00	\$0.00	\$0
17	1.2.1.6.3.2	Magnet Assembly	SLAC	B&H	4	44 wks	\$0.00	\$0.00	\$87,947.20	\$87,947.20	\$17,589.44	\$52,768.32	\$158,304
\dashv		SLAC Mech. Fab: Assembly Tech		B&H	0	44 wks	\$0.00	\$0.00	\$0.00	\$87,947.20	\$0.00	\$0.00	\$0
18	1.2.1.6.3.3	Proc., Man. & Assembly Supervision	SLAC	ED&I	1	3.5 wks	\$0.00	\$0.00	\$11,760.00	\$11,760.00	\$2,352.00	\$2,116.80	\$16,228
	1.2.1.0.0.0	SLAC AD: Mech/Vacuum Engineer	OL/10	ED&I	0	3.5 wks	\$0.00	\$0.00	\$0.00	\$11,760.00	\$0.00	\$0.00	\$10,22
.9	1.2.1.6.3.4	Magnet Tests in Lab	SLAC	B&H	0	7 wks	\$0.00	\$0.00	\$13,991.60	\$13,991.60	\$2,798.32	\$2,518.49	\$19,30
19	1.2.1.6.3.4	<u>-</u>	SLAC		'								
		SLAC Mech. Fab: Assembly Tech		B&H	0	7 wks	\$0.00	\$0.00	\$0.00	\$13,991.60	\$0.00	\$0.00	\$0
50	1.2.1.6.4	Linac Solenoid			0	12 wks	\$0.00	\$1.00	\$25,346.80	\$25,347.80	\$5,069.42	\$7,604.31	\$38,02
51	1.2.1.6.4.1	Magnet materials	SLAC	M&S	2	0 wks	\$0.00	\$1.00	\$0.00	\$1.00	\$0.06	\$0.27	\$
		SLAC M&S Total		M&S	0	1	\$0.00	\$0.00	\$0.00	\$1.00	\$0.00	\$0.00	\$0
52	1.2.1.6.4.2	Magnet assembly	SLAC	B&H	2	10 wks	\$0.00	\$0.00	\$19,988.00	\$19,988.00	\$3,997.60	\$5,996.40	\$29,98
		SLAC Mech. Fab: Assembly Tech		B&H	0	10 wks	\$0.00	\$0.00	\$0.00	\$19,988.00	\$0.00	\$0.00	\$6
53	1.2.1.6.4.3	Supervision	SLAC	ED&I	2	1 wk	\$0.00	\$0.00	\$3,360.00	\$3,360.00	\$672.00	\$1,008.00	\$5,04
\dashv		SLAC AD: Mech/Vacuum Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$3,360.00	\$0.00	\$0.00	\$6
54	1.2.1.6.4.4	Lab Testing	SLAC	B&H	2	1 wk	\$0.00	\$0.00	\$1,998.80	\$1,998.80	\$399.76	\$599.64	\$2,99
\dashv		SLAC Mech. Fab: Assembly Tech		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$1,998.80	\$0.00	\$0.00	\$0
55	1.2.1.6.5	Correctors			0	15.4 wks	\$0.00	\$11,000.00	\$41,970.72	\$52,970.72	\$9,054.14	\$15,506.22	\$77,53
6	1.2.1.6.5.1	Magnet Materials	SLAC	M&S	2	0 wks	\$0.00	\$11,000.00	\$0.00	\$11,000.00	\$660.00	\$2,915.00	\$14,57
\dashv		SLAC M&S Total		M&S	0	11,000	\$0.00	\$0.00	\$0.00	\$11,000.00	\$0.00	\$0.00	\$
7	1.2.1.6.5.2	Magnet Machining	SLAC	B&H	2	8.8 wks	\$0.00	\$0.00	\$28,160.00	\$28,160.00	\$5,632.00	\$8,448.00	\$42,24
\perp		SLAC Mech. Fab: Machine Shop		B&H	0	8.8 wks	\$0.00	\$0.00	\$0.00	\$28,160.00	\$0.00	\$0.00	\$
58	1.2.1.6.5.3	Mag Coil Winding	SLAC	B&H	2	2.2 wks	\$0.00	\$0.00	\$4,397.36	\$4,397.36	\$879.47	\$1,319.21	\$6,59
_	- /-	SLAC Mech. Fab: Assembly Tech		B&H	0	2.2 wks	\$0.00	\$0.00	\$0.00	\$4,397.36	\$0.00	\$0.00	\$
59	1.2.1.6.5.4	Magnet Assembly	SLAC	B&H	2	2.2 wks	\$0.00	\$0.00	\$4.397.36	\$4,397.36	\$879.47	\$1,319.21	\$6,59

ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		SLAC Mech. Fab: Assembly Tech		B&H	0	2.2 wks	\$0.00	\$0.00	\$0.00	\$4,397.36	\$0.00	\$0.00	\$0.
60	1.2.1.6.5.5	Mag Measure	SLAC	B&H	2	2.2 wks	\$0.00	\$0.00	\$5,016.00	\$5,016.00	\$1,003.20	\$1,504.80	\$7,524
		SLAC Metrology:Eng.& Surveyors		B&H	0	2.2 wks	\$0.00	\$0.00	\$0.00	\$5,016.00	\$0.00	\$0.00	\$6
1	1.2.1.6.6	Gun E Spectrometer			0	6 wks	\$0.00	\$8,000.00	\$16,910.08	\$24,910.08	\$3,862.02	\$7,193.02	\$35,965
2	1.2.1.6.6.1	Magnet Materials	SLAC	M&S	2	0 wks	\$0.00	\$8,000.00	\$0.00	\$8,000.00	\$480.00	\$2,120.00	\$10,60
		SLAC M&S Total		M&S	0	8,000	\$0.00	\$0.00	\$0.00	\$8,000.00	\$0.00	\$0.00	\$
3	1.2.1.6.6.2	Magnet Machining	SLAC	B&H	2	4 wks	\$0.00	\$0.00	\$12,800.00	\$12,800.00	\$2,560.00	\$3,840.00	\$19,20
		SLAC Mech. Fab: Machine Shop		B&H	0	4 wks	\$0.00	\$0.00	\$0.00	\$12,800.00	\$0.00	\$0.00	\$
i4	1.2.1.6.6.2	Magnet Coil Winding	SLAC	B&H	2	1 wk	\$0.00	\$0.00	\$1,998.80	\$1,998.80	\$399.76	\$599.64	\$2,99
		SLAC Mech. Fab: Assembly Tech		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$1,998.80	\$0.00	\$0.00	\$
5	1.2.1.6.6.3	Magnet Assembly	SLAC	B&H	2	0.6 wks	\$0.00	\$0.00	\$1,199.28	\$1,199.28	\$239.86	\$359.78	\$1,79
		SLAC Mech. Fab: Assembly Tech		B&H	0	0.6 wks	\$0.00	\$0.00	\$0.00	\$1,199.28	\$0.00	\$0.00	\$
6	1.2.1.6.6.3	Fiducialization	SLAC	B&H	2	0.2 wks	\$0.00	\$0.00	\$456.00	\$456.00	\$91.20	\$136.80	\$68
		SLAC Metrology:Eng.& Surveyors		B&H	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$456.00	\$0.00	\$0.00	\$
7	1.2.1.6.6.4	Mag Measure	SLAC	B&H	2	0.2 wks	\$0.00	\$0.00	\$456.00	\$456.00	\$91.20	\$136.80	\$68
		SLAC Metrology:Eng.& Surveyors		B&H	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$456.00	\$0.00	\$0.00	\$
8	1.2.1.6.7	Straight Ahead E Spectrometer			0	6 wks	\$0.00	\$8,000.00	\$16,910.08	\$24,910.08	\$3,862.02	\$7,193.02	\$35,96
9	1.2.1.6.7.1	- Magnet Materials	SLAC	M&S	2	0 wks	\$0.00	\$8,000.00	\$0.00	\$8,000.00	\$480.00	\$2,120.00	\$10,60
		SLAC M&S Total		M&S	0	8,000	\$0.00	\$0.00	\$0.00	\$8,000.00	\$0.00	\$0.00	\$
0	1.2.1.6.7.2		SLAC	B&H	2	4 wks	\$0.00	\$0.00	\$12,800.00	\$12,800.00	\$2,560.00	\$3,840.00	\$19,20
		SLAC Mech. Fab: Machine Shop	02.10	B&H	0	4 wks	\$0.00	\$0.00	\$0.00	\$12,800.00	\$0.00	\$0.00	Ų10,Z
71	1.2.1.6.7.3		SLAC	B&H	2	1 wk	\$0.00	\$0.00	\$1,998.80	\$1,998.80	\$399.76	\$599.64	\$2,99
	1.2.1.0.7.3	SLAC Mech. Fab: Assembly Tech	SLAC	B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$1,998.80	\$0.00	\$0.00	\$2,9
	101071	•	01.40		2		\$0.00					\$359.78	
72	1.2.1.6.7.4		SLAC	B&H	-	0.6 wks	,,,,,	\$0.00	\$1,199.28	\$1,199.28	\$239.86	,	\$1,79
		SLAC Mech. Fab: Assembly Tech		B&H	0	0.6 wks	\$0.00	\$0.00	\$0.00	\$1,199.28	\$0.00	\$0.00	\$
3	1.2.1.6.7.5		SLAC	B&H	2	0.2 wks	\$0.00	\$0.00	\$456.00	\$456.00	\$91.20	\$136.80	\$68
		SLAC Metrology:Eng.& Surveyors		B&H	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$456.00	\$0.00	\$0.00	\$
4	1.2.1.6.7.6	Mag Measure	SLAC	B&H	2	0.2 wks	\$0.00	\$0.00	\$456.00	\$456.00	\$91.20	\$136.80	\$68
		SLAC Metrology:Eng.& Surveyors		B&H	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$456.00	\$0.00	\$0.00	\$
5	1.2.1.7	Controls			0	227.1 wks	\$0.00	\$696,000.00	\$556,024.42	\$1,252,024.42	\$152,964.88	\$441,338.93	\$1,846,32
6	1.2.1.7.1	Computers & Crates			0	56.3 wks	\$0.00	\$116,400.00	\$138,962.56	\$255,362.56	\$34,776.51	\$82,626.15	\$372,76
7	1.2.1.7.1.1	VME Crates, IOC's & Interface Chassis (3)	SLAC	M&S	2	0 wks	\$0.00	\$11,000.00	\$0.00	\$11,000.00	\$660.00	\$2,915.00	\$14,57
		SLAC M&S Total		M&S	0	11,000	\$0.00	\$0.00	\$0.00	\$11,000.00	\$0.00	\$0.00	Ş
'8	1.2.1.7.1.1	Install VME Crates, IOC's & Interface Chassis	SLAC	B&H	2	0.6 wks	\$0.00	\$0.00	\$1,052.16	\$1,052.16	\$210.43	\$315.65	\$1,57
		SLAC Controls: Technician		B&H	0	0.6 wks	\$0.00	\$0.00	\$0.00	\$1,052.16	\$0.00	\$0.00	\$

ID		Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
79	1.2.1.7.1.1	Cableplant	SLAC	M&S	2	0 wks	\$0.00	\$200.00	\$0.00	\$200.00	\$12.00	\$53.00	\$265.
		SLAC M&S Total		M&S	0	200	\$0.00	\$0.00	\$0.00	\$200.00	\$0.00	\$0.00	\$0.
80	1.2.1.7.1.1	Multibus Crate w/ CPU & cards	SLAC	M&S	0	0 wks	\$0.00	\$45,000.00	\$0.00	\$45,000.00	\$2,700.00	\$0.00	\$47,700
		SLAC M&S Total		M&S	0	45,000	\$0.00	\$0.00	\$0.00	\$45,000.00	\$0.00	\$0.00	\$0.
81	1.2.1.7.1.1	Assemble & Test Multibus Crate w/ CPU & cards	SLAC	B&H	3	1.5 wks	\$0.00	\$0.00	\$2,630.40	\$2,630.40	\$526.08	\$1,104.77	\$4,261
\dashv		SLAC Controls: Technician		B&H	0	1.5 wks	\$0.00	\$0.00	\$0.00	\$2,630.40	\$0.00	\$0.00	\$0
32	1.2.1.7.1.1	Cable Fab	SLAC	B&H	2	0.2 wks	\$0.00	\$0.00	\$400.00	\$400.00	\$80.00	\$120.00	\$600
\dashv		SLACL PCD:Inst-Cabling-Elec Fab		B&H	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$400.00	\$0.00	\$0.00	\$0
3	1.2.1.7.1.1	Multibus Cableplant	SLAC	M&S	2	0 wks	\$0.00	\$600.00	\$0.00	\$600.00	\$36.00	\$159.00	\$79
\dashv		SLAC M&S Total		M&S	0	600	\$0.00	\$0.00	\$0.00	\$600.00	\$0.00	\$0.00	\$0
84	1.2.1.7.1.1	CAMAC Crates, Control & Support Modules	SLAC	ED&I	3	52 wks	\$0.00	\$0.00	\$131,372.80	\$131,372.80	\$26,274.56	\$55,176.58	\$212,823
\dashv		SLAC Controls: Programmer		ED&I	0	52 wks	\$0.00	\$0.00	\$0.00	\$131,372.80	\$0.00	\$0.00	\$0
5	1.2.1.7.1.1	CAMAC Crates, Control & Support Modules	SLAC	M&S	3	0 wks	\$0.00	\$56,000.00	\$0.00	\$56,000.00	\$3,360.00	\$20,776.00	\$80,13
\dashv		SLAC M&S Total		M&S	0	56,000	\$0.00	\$0.00	\$0.00	\$56,000.00	\$0.00	\$0.00	\$1
6	1.2.1.7.1.1	Install CAMAC Crates, CTL & Support Modules	SLAC	B&H	2	2 wks	\$0.00	\$0.00	\$3,507.20	\$3,507.20	\$701.44	\$1,052.16	\$5,26
4		SLAC Controls: Technician		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$3,507.20	\$0.00	\$0.00	\$
7	1.2.1.7.1.1	CAMAC System Cableplant	SLAC	M&S	2	0 wks	\$0.00	\$3,600.00	\$0.00	\$3,600.00	\$216.00	\$954.00	\$4,77
		SLAC M&S Total		M&S	0	3,600	\$0.00	\$0.00	\$0.00	\$3,600.00	\$0.00	\$0.00	\$1,11
38	1.2.1.7.2	TIMING DISTRIBUTION SYSTEM-CAMAC			0	100.5 wks	\$0.00	\$45,000.00	\$253,516.80	\$298,516.80	\$53,403.36	\$171,722.04	\$523,642

9	1.2.1.7.2.1	Master & Distributed Timing Hardware	SLAC	M&S	4	0 wks	\$0.00	\$30,000.00	\$0.00	\$30,000.00	\$1,800.00	\$15,900.00	\$47,70
		SLAC M&S Total		M&S	0	30,000	\$0.00	\$0.00	\$0.00	\$30,000.00	\$0.00	\$0.00	\$
10	1.2.1.7.2.1	Software & Timing Interface	SLAC	ED&I	4	100 wks	\$0.00	\$0.00	\$252,640.00	\$252,640.00	\$50,528.00	\$151,584.00	\$454,75
		SLAC Controls: Programmer		ED&I	0	100 wks	\$0.00	\$0.00	\$0.00	\$252,640.00	\$0.00	\$0.00	\$
11	1.2.1.7.2.1	Install M&D Timing System Hardware	SLAC	B&H	2	0.5 wks	\$0.00	\$0.00	\$876.80	\$876.80	\$175.36	\$263.04	\$1,31
		SLAC Controls: Technician		B&H	0	0.5 wks	\$0.00	\$0.00	\$0.00	\$876.80	\$0.00	\$0.00	\$
12	1.2.1.7.2.1	Timing System Heliax Cableplant	SLAC	M&S	2	0 wks	\$0.00	\$15,000.00	\$0.00	\$15,000.00	\$900.00	\$3,975.00	\$19,87
7		SLAC M&S Total		M&S	0	15,000	\$0.00	\$0.00	\$0.00	\$15,000.00	\$0.00	\$0.00	\$
13	1.2.1.7.3	LCLS VACUUM SYSTEM (11)			0	0.97 wks	\$0.00	\$135,400.00	\$1,723.17	\$137,123.17	\$8,468.63	\$26,544.86	\$172,13
14	1.2.1.7.3.1	Programmed Multi Valve Controller Ch. 6 Chnl. (2)	SLAC	B&H	2	0.2 wks	\$0.00	\$0.00	\$350.72	\$350.72	\$70.14	\$105.22	\$52
\dashv		SLAC Controls: Technician		B&H	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$350.72	\$0.00	\$0.00	\$
5	1.2.1.7.3.1	Programmed Multi Valve Controller Ch. 6 Chnl. (2)	SLAC	M&S	2	0 wks	\$0.00	\$20,000.00	\$0.00	\$20,000.00	\$1,200.00	\$5,300.00	\$26,50
+		SLAC M&S Total		M&S	0	20,000	\$0.00	\$0.00	\$0.00	\$20,000.00	\$0.00	\$0.00	\$
6	1.2.1.7.3.2	Valve Controller J-Box (11)	SLAC	B&H	1	0.2 wks	\$0.00	\$0.00	\$350.72	\$350.72	\$70.14	\$63.13	\$48
\dashv		SLAC Controls: Technician		B&H	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$350.72	\$0.00	\$0.00	\$
17	1.2.1.7.3.2	Valve Controller J-Box (11)	SLAC	M&S		0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,21

C	CD1	TEC

ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.0
98	1.2.1.7.3.3		SLAC	B&H	1	0.02 wks	\$0.00	\$0.00	\$35.07	\$35.07	\$7.01	\$6.31	\$48.
		SLAC Controls: Technician		B&H	0	0.02 wks	\$0.00	\$0.00	\$0.00	\$35.07	\$0.00	\$0.00	\$0.
99	1.2.1.7.3.3	Fast Valve Controller (1)	SLAC	M&S	1	0 wks	\$0.00	\$5,000.00	\$0.00	\$5,000.00	\$300.00	\$795.00	\$6,095
		SLAC M&S Total		M&S	0	5,000	\$0.00	\$0.00	\$0.00	\$5,000.00	\$0.00	\$0.00	\$0
00	1.2.1.7.3.4	Vacuum Guage Controller Chassis (10)	SLAC	B&H	1	0.2 wks	\$0.00	\$0.00	\$350.72	\$350.72	\$70.14	\$63.13	\$483
		SLAC Controls: Technician		B&H	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$350.72	\$0.00	\$0.00	\$0
01	1.2.1.7.3.4	Vacuum Guage Controller Chassis (10)	SLAC	M&S	1	0 wks	\$0.00	\$30,000.00	\$0.00	\$30,000.00	\$1,800.00	\$4,770.00	\$36,570
		SLAC M&S Total		M&S	0	30,000	\$0.00	\$0.00	\$0.00	\$30,000.00	\$0.00	\$0.00	\$0
02	1.2.1.7.3.5	Vacuum Pump Power Supplies (10)	SLAC	B&H	1	0.2 wks	\$0.00	\$0.00	\$350.72	\$350.72	\$70.14	\$63.13	\$483
		SLAC Controls: Technician		B&H	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$350.72	\$0.00	\$0.00	\$0
03	1.2.1.7.3.5	Vacuum Pump Power Supplies (10)	SLAC	M&S	1	0 wks	\$0.00	\$35,000.00	\$0.00	\$35,000.00	\$2,100.00	\$5,565.00	\$42,66
		SLAC M&S Total		M&S	0	35,000	\$0.00	\$0.00	\$0.00	\$35,000.00	\$0.00	\$0.00	\$0
04	1.2.1.7.3.6	CAMAC Module, SAM (2)	SLAC	B&H	1	0.02 wks	\$0.00	\$0.00	\$35.07	\$35.07	\$7.01	\$6.31	\$4
		SLAC Controls: Technician		B&H	0	0.02 wks	\$0.00	\$0.00	\$0.00	\$35.07	\$0.00	\$0.00	\$
)5	1.2.1.7.3.6	CAMAC Module, SAM (2)	SLAC	M&S	1	0 wks	\$0.00	\$12,000.00	\$0.00	\$12,000.00	\$720.00	\$1,908.00	\$14,62
		SLAC M&S Total		M&S	0	12,000	\$0.00	\$0.00	\$0.00	\$12,000.00	\$0.00	\$0.00	\$
06	1.2.1.7.3.7		SLAC	B&H	1	0.02 wks	\$0.00	\$0.00	\$35.07	\$35.07	\$7.01	\$6.31	\$4
		SLAC Controls: Technician		B&H	0	0.02 wks	\$0.00	\$0.00	\$0.00	\$35.07	\$0.00	\$0.00	\$(
07	1.2.1.7.3.7		SLAC	M&S	1	0 wks	\$0.00	\$8,000.00	\$0.00	\$8,000.00	\$480.00	\$1,272.00	\$9,75
	1.2.1.7.3.7	SLAC M&S Total	SLAC	M&S	0	8,000	\$0.00	\$0.00	\$0.00	\$8,000.00	\$0.00	\$0.00	\$9,75
20	101700		01.40		0								
08	1.2.1.7.3.8		SLAC	B&H	1	0.02 wks	\$0.00	\$0.00	\$35.07	\$35.07	\$7.01	\$6.31	\$4
		SLAC Controls: Technician		B&H	0	0.02 wks	\$0.00	\$0.00	\$0.00	\$35.07	\$0.00	\$0.00	\$
09	1.2.1.7.3.8		SLAC	M&S	1	0 wks	\$0.00	\$9,000.00	\$0.00	\$9,000.00	\$540.00	\$1,431.00	\$10,97
		SLAC M&S Total		M&S	0	9,000	\$0.00	\$0.00	\$0.00	\$9,000.00	\$0.00	\$0.00	\$6
0	1.2.1.7.3.9	Delete 2-ch Valve Controller	SLAC		1	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$
11	1.2.1.7.3.10	Valve Control Cable (250')	SLAC	M&S	3	0 wks	\$0.00	\$6,000.00	\$0.00	\$6,000.00	\$360.00	\$2,226.00	\$8,58
		SLAC M&S Total		M&S	0	6,000	\$0.00	\$0.00	\$0.00	\$6,000.00	\$0.00	\$0.00	\$
12	1.2.1.7.3.11	Vacuum Guage Cable (coax) (250')	SLAC	M&S	3	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$180.00	\$1,113.00	\$4,29
		SLAC M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$
13	1.2.1.7.3.12	Valve Controller J-Box Cable (20')	SLAC	M&S	3	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$180.00	\$1,113.00	\$4,29
		SLAC M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$
14	1.2.1.7.3.13	CAMAC cable SAM (3)	SLAC	B&H	1	0.03 wks	\$0.00	\$0.00	\$60.00	\$60.00	\$12.00	\$10.80	\$8:
		SLACL PCD:Inst-Cabling-Elec Fab		В&Н	0	0.03 wks	\$0.00	\$0.00	\$0.00	\$60.00	\$0.00	\$0.00	\$
15	1.2.1.7.3.13	CAMAC cable SAM (3)	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,21

C	CD1	TEC

ID	CWBS	Task Name SLAC M&S Total	OBS	PHASE M&S	Risk	Units 1,000	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost \$1,000.00	Overhead Cost \$0.00	Contingency Cost \$0.00	Total Cost \$0.00
			21.00				,,,,,	,,,,,					
616	1.2.1.7.3.14	`,	SLAC	B&H	1	0.03 wks	\$0.00	\$0.00	\$60.00	\$60.00	\$12.00	\$10.80	\$82.80
		SLACL PCD:Inst-Cabling-Elec Fab		B&H	0	0.03 wks	\$0.00	\$0.00	\$0.00	\$60.00	\$0.00	\$0.00	\$0.00
617	1.2.1.7.3.14	CAMAC cable ID0M (2)	SLAC	M&S	1	0 wks	\$0.00	\$400.00	\$0.00	\$400.00	\$24.00	\$63.60	\$487.60
		SLAC M&S Total		M&S	0	400	\$0.00	\$0.00	\$0.00	\$400.00	\$0.00	\$0.00	\$0.00
618	1.2.1.7.3.15	CAMAC cable IDIM	SLAC	B&H	1	0.03 wks	\$0.00	\$0.00	\$60.00	\$60.00	\$12.00	\$10.80	\$82.80
		SLACL PCD:Inst-Cabling-Elec Fab		B&H	0	0.03 wks	\$0.00	\$0.00	\$0.00	\$60.00	\$0.00	\$0.00	\$0.00
619	1.2.1.7.3.15	CAMAC cable IDIM	SLAC	M&S	1	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$318.00	\$2,438.0
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.00
620	1.2.1.7.4	TUNE-UP DUMPS (1)			0	0.15 wks	\$0.00	\$8,500.00	\$285.22	\$8,785.22	\$567.04	\$1,402.84	\$10,755.10
621	1.2.1.7.4.1	IDIM Module 2)	SLAC	B&H		0.02 wks	\$0.00	\$0.00	\$35.07	\$35.07	\$7.01	\$6.31	\$48.40
021	1.2.1.7.4.1	, '	SLAC		'								
		SLAC Controls: Technician		B&H	0	0.02 wks	\$0.00	\$0.00	\$0.00	\$35.07	\$0.00	\$0.00	\$0.00
622	1.2.1.7.4.1	IDIM Module 2)	SLAC	M&S	1	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$180.00	\$477.00	\$3,657.0
		SLAC M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0.00
623	1.2.1.7.4.2	IDOM Module (1)	SLAC	B&H	1	0.02 wks	\$0.00	\$0.00	\$35.07	\$35.07	\$7.01	\$6.31	\$48.4
		SLAC Controls: Technician		B&H	0	0.02 wks	\$0.00	\$0.00	\$0.00	\$35.07	\$0.00	\$0.00	\$0.00
624	1.2.1.7.4.2	IDOM Module (1)	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219.0
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.00
625	1.2.1.7.4.3	Profile Monitor Chassis (1)	SLAC	B&H	1	0.02 wks	\$0.00	\$0.00	\$35.07	\$35.07	\$7.01	\$6.31	\$48.4
		SLAC Controls: Technician		B&H	0	0.02 wks	\$0.00	\$0.00	\$0.00	\$35.07	\$0.00	\$0.00	\$0.00
626	1.2.1.7.4.3		SLAC	M&S		0.02 wks	\$0.00	\$4,000.00	\$0.00	\$4,000.00	\$240.00	\$636.00	\$4,876.0
020	1.2.1.7.4.3		SLAC		'								
		SLAC M&S Total		M&S	0	4,000	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$0.00
627	1.2.1.7.4.4	Multi-conductor (21C/16GA-CONT&STAT) (2)	SLAC		1	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
628	1.2.1.7.4.5	CAMAC cable IDIM (2)	SLAC	B&H	1	0.03 wks	\$0.00	\$0.00	\$60.00	\$60.00	\$12.00	\$10.80	\$82.8
		SLACL PCD:Inst-Cabling-Elec Fab		B&H	0	0.03 wks	\$0.00	\$0.00	\$0.00	\$60.00	\$0.00	\$0.00	\$0.00
629	1.2.1.7.4.5	CAMAC cable IDIM (2)	SLAC	M&S	1	0 wks	\$0.00	\$200.00	\$0.00	\$200.00	\$12.00	\$31.80	\$243.8
		SLAC M&S Total		M&S	0	200	\$0.00	\$0.00	\$0.00	\$200.00	\$0.00	\$0.00	\$0.00
630	1.2.1.7.4.6	CAMAC cable IDOM (1)	SLAC	B&H	1	0.03 wks	\$0.00	\$0.00	\$60.00	\$60.00	\$12.00	\$10.80	\$82.8
		SLACL PCD:Inst-Cabling-Elec Fab		B&H	0	0.03 wks	\$0.00	\$0.00	\$0.00	\$60.00	\$0.00	\$0.00	\$0.00
631	1.2.1.7.4.6	CAMAC cable IDOM (1)	SLAC	M&S	1	0 wks	\$0.00	\$200.00	\$0.00	\$200.00	\$12.00	\$31.80	\$243.8
		SLAC M&S Total	02.10	M&S	0	200	\$0.00	\$0.00	\$0.00	\$200.00	\$0.00	\$0.00	\$0.0
000	1017:-		01.43										
632	1.2.1.7.4.7		SLAC	B&H	1	0.03 wks	\$0.00	\$0.00	\$60.00	\$60.00	\$12.00	\$10.80	\$82.8
		SLACL PCD:Inst-Cabling-Elec Fab		B&H	0	0.03 wks	\$0.00	\$0.00	\$0.00	\$60.00	\$0.00	\$0.00	\$0.00
633	1.2.1.7.4.7	WIRING OF TD ASSEMBLY IN LAB (1)	SLAC	M&S	1	0 wks	\$0.00	\$100.00	\$0.00	\$100.00	\$6.00	\$15.90	\$121.9
		SLAC M&S Total		M&S	0	100	\$0.00	\$0.00	\$0.00	\$100.00	\$0.00	\$0.00	\$0.00

ID 634	CWBS 1.2.1.7.5	Task Name WIRE SCANNERS (4)	OBS	PHASE	Risk 0	Units 1.24 wks	PED (Direct) \$0.00	M&S (Direct) \$38,000.00	Labor (Direct) \$2,194.18	Direct Cost \$40,194.18	Overhead Cost \$2,718.84	Contingency Cost \$10,493.02	Total Cost \$53,406.03
635	1.2.1.7.5.1	Power Supply EMI 20v@50A (1)	SLAC	B&H	1	0.2 wks	\$0.00	\$0.00	\$350.72	\$350.72	\$70.14	\$63.13	\$483.9
		SLAC Controls: Technician		B&H	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$350.72	\$0.00	\$0.00	\$0.0
636	1.2.1.7.5.1	Power Supply EMI 20v@50A (1)	SLAC	M&S	1	0 wks	\$0.00	\$1,200.00	\$0.00	\$1,200.00	\$72.00	\$190.80	\$1,462.8
		SLAC M&S Total		M&S	0	1,200	\$0.00	\$0.00	\$0.00	\$1,200.00	\$0.00	\$0.00	\$0.0
637	1.2.1.7.5.2		SLAC	B&H	1	0.2 wks	\$0.00	\$0.00	\$350.72	\$350.72	\$70.14	\$63.13	\$483.9
557	1.2.1.7.5.2	SLAC Controls: Technician	SEAC	B&H	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$350.72	\$0.00	\$0.00	\$0.0
638	424752		SLAC	M&S	0	0.2 WAS	\$0.00	\$3,500.00	\$0.00	\$3,500.00	\$210.00	\$556.50	\$4,266.
038	1.2.1.7.5.2		SLAC		1								
		SLAC M&S Total		M&S	0	3,500	\$0.00	\$0.00	\$0.00	\$3,500.00	\$0.00	\$0.00	\$0.0
39	1.2.1.7.5.3		SLAC	B&H	2	0.2 wks	\$0.00	\$0.00	\$350.72	\$350.72	\$70.14	\$105.22	\$526.0
		SLAC Controls: Technician		B&H	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$350.72	\$0.00	\$0.00	\$0.0
640	1.2.1.7.5.3	LVDT PCB (2)	SLAC	M&S	2	0 wks	\$0.00	\$1,200.00	\$0.00	\$1,200.00	\$72.00	\$318.00	\$1,590.
		SLAC M&S Total		M&S	0	1,200	\$0.00	\$0.00	\$0.00	\$1,200.00	\$0.00	\$0.00	\$0.0
641	1.2.1.7.5.4	LVDT Unit (4)	SLAC	B&H	2	0.2 wks	\$0.00	\$0.00	\$350.72	\$350.72	\$70.14	\$105.22	\$526.
		SLAC Controls: Technician		B&H	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$350.72	\$0.00	\$0.00	\$0.0
642	1.2.1.7.5.4	LVDT Unit (4)	SLAC	M&S	2	0 wks	\$0.00	\$2,400.00	\$0.00	\$2,400.00	\$144.00	\$636.00	\$3,180.
		SLAC M&S Total		M&S	0	2,400	\$0.00	\$0.00	\$0.00	\$2,400.00	\$0.00	\$0.00	\$0.
643	1.2.1.7.5.5	10 Channel Resistor Interface Chassis (1)	SLAC	B&H	2	0.2 wks	\$0.00	\$0.00	\$350.72	\$350.72	\$70.14	\$105.22	\$526.
		SLAC Controls: Technician		B&H	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$350.72	\$0.00	\$0.00	\$0.0
644	1.2.1.7.5.5	10 Channel Resistor Interface Chassis (1)	SLAC	M&S	2	0 wks	\$0.00	\$1,700.00	\$0.00	\$1,700.00	\$102.00	\$450.50	\$2,252.
		SLAC M&S Total		M&S	0	1,700	\$0.00	\$0.00	\$0.00	\$1,700.00	\$0.00	\$0.00	\$0.
645	1.2.1.7.5.6	CAMAC Module, SAM (1)	SLAC	B&H	1	0.02 wks	\$0.00	\$0.00	\$35.07	\$35.07	\$7.01	\$6.31	\$48.
		SLAC Controls: Technician		B&H	0	0.02 wks	\$0.00	\$0.00	\$0.00	\$35.07	\$0.00	\$0.00	\$0.
646	1.2.1.7.5.6		SLAC	M&S	1	0 wks	\$0.00	\$1,900.00	\$0.00	\$1,900.00	\$114.00	\$302.10	\$2,316.
540	1.2.1.7.0.0	SLAC M&S Total	OL/10	M&S	0	1,900	\$0.00	\$0.00	\$0.00	\$1,900.00	\$0.00	\$0.00	\$0.
					0							.	
647	1.2.1.7.5.7	CAMAC Module, GADC (1)	SLAC	B&H	1	0.02 wks	\$0.00	\$0.00	\$35.07	\$35.07	\$7.01	\$6.31	\$48.
		SLAC Controls: Technician		B&H	0	0.02 wks	\$0.00	\$0.00	\$0.00	\$35.07	\$0.00	\$0.00	\$0.
648	1.2.1.7.5.7	CAMAC Module, GADC (1)	SLAC	M&S	1	0 wks	\$0.00	\$2,800.00	\$0.00	\$2,800.00	\$168.00	\$445.20	\$3,413.
		SLAC M&S Total		M&S	0	2,800	\$0.00	\$0.00	\$0.00	\$2,800.00	\$0.00	\$0.00	\$0.
649	1.2.1.7.5.8	CAMAC Module, PDGG (1)	SLAC	B&H	1	0.02 wks	\$0.00	\$0.00	\$35.07	\$35.07	\$7.01	\$6.31	\$48.
		SLAC Controls: Technician		B&H	0	0.02 wks	\$0.00	\$0.00	\$0.00	\$35.07	\$0.00	\$0.00	\$0.
550	1.2.1.7.5.8	CAMAC Module, PDGG (1)	SLAC	M&S	1	0 wks	\$0.00	\$1,500.00	\$0.00	\$1,500.00	\$90.00	\$238.50	\$1,828.
		SLAC M&S Total		M&S	0	1,500	\$0.00	\$0.00	\$0.00	\$1,500.00	\$0.00	\$0.00	\$0.
551	1.2.1.7.5.9	CAMAC Module,DAC (1)	SLAC	B&H	1	0.02 wks	\$0.00	\$0.00	\$35.07	\$35.07	\$7.01	\$6.31	\$48.
		SLAC Controls: Technician		B&H	0	0.02 wks	\$0.00	\$0.00	\$0.00	\$35.07	\$0.00	\$0.00	\$0.0

101	0	CD4	TEC
LUL		CUI	TEC

ID 652	CWBS 1.2.1.7.5.9	Task Name CAMAC Module,DAC (1)	OBS SLAC	PHASE M&S	Risk	Units 0 wks	PED (Direct) \$0.00	M&S (Direct) \$2,200.00	Labor (Direct) \$0.00	Direct Cost \$2,200.00	Overhead Cost \$132.00	Contingency Cost \$349.80	Total Cost \$2,681.80
002	1.2.1.7.0.0	SLAC M&S Total	OLITO	M&S	0	2,200	\$0.00	\$0.00	\$0.00	\$2,200.00	\$0.00	\$0.00	\$0.00
					0								
653	1.2.1.7.5.10	CAMAC Module, Stepper Motor Controller, SMC-24BP (4)	SLAC	B&H	1	0.02 wks	\$0.00	\$0.00	\$35.07	\$35.07	\$7.01	\$6.31	\$48.40
		SLAC Controls: Technician		B&H	0	0.02 wks	\$0.00	\$0.00	\$0.00	\$35.07	\$0.00	\$0.00	\$0.00
654	1.2.1.7.5.10	CAMAC Module, Stepper Motor Controller, SMC-24BP (4)	SLAC	M&S	1	0 wks	\$0.00	\$6,000.00	\$0.00	\$6,000.00	\$360.00	\$954.00	\$7,314.00
		SLAC M&S Total		M&S	0	6,000	\$0.00	\$0.00	\$0.00	\$6,000.00	\$0.00	\$0.00	\$0.00
655	1.2.1.7.5.11	16 Channel Interface Chassis (1)	SLAC	B&H	2	0.02 wks	\$0.00	\$0.00	\$35.07	\$35.07	\$7.01	\$10.52	\$52.61
		SLAC Controls: Technician		B&H	0	0.02 wks	\$0.00	\$0.00	\$0.00	\$35.07	\$0.00	\$0.00	\$0.00
656	1.2.1.7.5.11	16 Channel Interface Chassis (1)	SLAC	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$265.00	\$1,325.00
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.00
657	1.2.1.7.5.12	HV P.S., 8 CH. BEAMSTRAHLUNG CH. (1)	SLAC	B&H	1	0.02 wks	\$0.00	\$0.00	\$35.07	\$35.07	\$7.01	\$6.31	\$48.40
		SLAC Controls: Technician		B&H	0	0.02 wks	\$0.00	\$0.00	\$0.00	\$35.07	\$0.00	\$0.00	\$0.00
658	1.2.1.7.5.12	HV P.S., 8 CH. BEAMSTRAHLUNG CH. (1)	SLAC	M&S	1	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$180.00	\$477.00	\$3,657.00
		SLAC M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0.00
659	1.2.1.7.5.13	Photo-multiplier Tube Electronics Assem., Phillips (4)	SLAC	B&H	1	0.02 wks	\$0.00	\$0.00	\$35.07	\$35.07	\$7.01	\$6.31	\$48.40
059	1.2.1.7.5.13		SLAC	B&H	'		****						
		SLAC Controls: Technician			0	0.02 wks	\$0.00	\$0.00	\$0.00	\$35.07	\$0.00	\$0.00	\$0.00
660	1.2.1.7.5.13	Photo-multiplier Tube Electronics Assem., Phillips (4)	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219.00
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.00
661	1.2.1.7.5.14	RG58 to PMT 250'	SLAC	M&S	4	0 wks	\$0.00	\$1,200.00	\$0.00	\$1,200.00	\$72.00	\$636.00	\$1,908.00
		SLAC M&S Total		M&S	0	1,200	\$0.00	\$0.00	\$0.00	\$1,200.00	\$0.00	\$0.00	\$0.00
662	1.2.1.7.5.15	MULTI-COND (4PR) DATRONIC TO LVDT 250'	SLAC	M&S	4	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$1,060.00	\$3,180.00
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.00
663	1.2.1.7.5.16	MULTI-COND (12/C) REST. CH. TO SMC MODULE	SLAC	B&H	4	0.02 wks	\$0.00	\$0.00	\$40.00	\$40.00	\$8.00	\$24.00	\$72.00
		SLACL PCD:Inst-Cabling-Elec Fab		B&H	0	0.02 wks	\$0.00	\$0.00	\$0.00	\$40.00	\$0.00	\$0.00	\$0.00
664	1.2.1.7.5.16	MULTI-COND (12/C) REST. CH. TO SMC MODULE	SLAC	M&S	4	0 wks	\$0.00	\$800.00	\$0.00	\$800.00	\$48.00	\$424.00	\$1,272.00
		SLAC M&S Total		M&S	0	800	\$0.00	\$0.00	\$0.00	\$800.00	\$0.00	\$0.00	\$0.00
665	1.2.1.7.5.17	MULTI-COND (12/C) REST. CH. TO WIRE SCANNER	SLAC	B&H	4	0.02 wks	\$0.00	\$0.00	\$40.00	\$40.00	\$8.00	\$24.00	\$72.00
		SLACL PCD:Inst-Cabling-Elec Fab		B&H	0	0.02 wks	\$0.00	\$0.00	\$0.00	\$40.00	\$0.00	\$0.00	\$0.00
666	1.2.1.7.5.17	MULTI-COND (12/C) REST. CH. TO WIRE SCANNER	SLAC	M&S	4	0 wks	\$0.00	\$1,600.00	\$0.00	\$1,600.00	\$96.00	\$848.00	\$2,544.00
		SLAC M&S Total		M&S	0	1,600	\$0.00	\$0.00	\$0.00	\$1,600.00	\$0.00	\$0.00	\$0.00
667	1.2.1.7.5.18		SLAC	B&H			\$0.00	\$0.00	\$40.00				\$72.00
667	1.2.1.7.5.18	CAMAC CABLE (36/C)16 CHNL DIST. TO SAM	SLAC		4	0.02 wks				\$40.00	\$8.00		
		SLACL PCD:Inst-Cabling-Elec Fab		B&H	0	0.02 wks	\$0.00	\$0.00	\$0.00	\$40.00	\$0.00	\$0.00	\$0.00
668	1.2.1.7.5.18	CAMAC CABLE (36/C)16 CHNL DIST. TO SAM	SLAC	M&S	4	0 wks	\$0.00	\$600.00	\$0.00	\$600.00	\$36.00	\$318.00	\$954.00
		SLAC M&S Total		M&S	0	600	\$0.00	\$0.00	\$0.00	\$600.00	\$0.00	\$0.00	\$0.00
669	1.2.1.7.5.19	SINGLE-COND P.S. TO REST. CH.	SLAC	B&H	4	0.02 wks	\$0.00	\$0.00	\$40.00	\$40.00	\$8.00	\$24.00	\$72.00

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ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		SLACL PCD:Inst-Cabling-Elec Fab		B&H	0	0.02 wks	\$0.00	\$0.00	\$0.00	\$40.00	\$0.00	\$0.00	\$0.0
70	1.2.1.7.5.20	SINGLE-COND P.S. TO REST. CH.	SLAC	M&S	4	0 wks	\$0.00	\$400.00	\$0.00	\$400.00	\$24.00	\$212.00	\$636.
		SLAC M&S Total		M&S	0	400	\$0.00	\$0.00	\$0.00	\$400.00	\$0.00	\$0.00	\$0.
71	1.2.1.7.5.21	WIRING OF WIRE SCANNER ASSEMBLY IN LAB (4)	SLAC	M&S	4	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$1,060.00	\$3,180.
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.
72	1.2.1.7.6	BEAM POSITION MONITORS (13)			0	4.2 wks	\$0.00	\$87,000.00	\$8,400.00	\$95,400.00	\$6,900.00	\$26,902.00	\$129,202.
73	1.2.1.7.6.1	BPM Processor Modules	SLAC	ED&I	2	0.2 wks	\$0.00	\$0.00	\$400.00	\$400.00	\$80.00	\$120.00	\$600
		SLAC Controls: Coordinator Assoc.		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$400.00	\$0.00	\$0.00	\$0
74	1.2.1.7.6.1	BPM Processor Modules	SLAC	M&S	2	0 wks	\$0.00	\$28,000.00	\$0.00	\$28,000.00	\$1,680.00	\$7,420.00	\$37,100
		SLAC M&S Total		M&S	0	28,000	\$0.00	\$0.00	\$0.00	\$28,000.00	\$0.00	\$0.00	\$0
75	1.2.1.7.6.2	Head Amplifier Chassis	SLAC	ED&I	1	0.15 wks	\$0.00	\$0.00	\$300.00	\$300.00	\$60.00	\$54.00	\$414
		SLAC Controls: Coordinator Assoc.		ED&I	0	0.15 wks	\$0.00	\$0.00	\$0.00	\$300.00	\$0.00	\$0.00	\$0
76	1.2.1.7.6.2	Head Amplifier Chassis	SLAC	M&S	1	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$180.00	\$477.00	\$3,657
		SLAC M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0
77	1.2.1.7.6.3	Head Amplifier Modules	SLAC	ED&I	2	0.15 wks	\$0.00	\$0.00	\$300.00	\$300.00	\$60.00	\$90.00	\$450
		SLAC Controls: Coordinator Assoc.	1	ED&I	0	0.15 wks	\$0.00	\$0.00	\$0.00	\$300.00	\$0.00	\$0.00	\$(
'8	1.2.1.7.6.3		SLAC	M&S	2	0.70 wks	\$0.00	\$28,000.00	\$0.00	\$28,000.00	\$1,680.00		\$37,10
	1.2.1.7.0.3	SLAC M&S Total	SLAC	M&S	0	28,000	\$0.00	\$0.00	\$0.00	\$28,000.00	\$0.00	\$0.00	\$37,100
79	1.2.1.7.6.4		SLAC	ED&I	0	0.2 wks	\$0.00	\$0.00	\$400.00	\$28,000.00	\$80.00	\$72.00	\$552
79	1.2.1.7.6.4		SLAC		1		,,,,,,		,		,,,,,		
		SLAC Controls: Coordinator Assoc.		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$400.00	\$0.00	\$0.00	\$0
30	1.2.1.7.6.4		SLAC	M&S	1	0 wks	\$0.00	\$21,000.00	\$0.00	\$21,000.00	\$1,260.00	\$3,339.00	\$25,59
		SLAC M&S Total		M&S	0	21,000	\$0.00	\$0.00	\$0.00	\$21,000.00	\$0.00	\$0.00	\$6
81	1.2.1.7.6.5	Controls Technician	SLAC	ED&I	4	2 wks	\$0.00	\$0.00	\$4,000.00	\$4,000.00	\$800.00	\$2,400.00	\$7,200
		SLAC Controls: Coordinator Assoc.		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$0
32	1.2.1.7.6.6	RG233 (4 ea BPM, timed&matched, 200')	SLAC	M&S	4	0 wks	\$0.00	\$4,000.00	\$0.00	\$4,000.00	\$240.00	\$2,120.00	\$6,360
		SLAC M&S Total		M&S	0	4,000	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$0
33	1.2.1.7.6.7	RG233 pigtails (8 ea BPM, timed&matched, 10')	SLAC	B&H	4	0.2 wks	\$0.00	\$0.00	\$400.00	\$400.00	\$80.00	\$240.00	\$720
		SLACL PCD:Inst-Cabling-Elec Fab		B&H	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$400.00	\$0.00	\$0.00	\$6
34	1.2.1.7.6.7	RG233 pigtails (8 ea BPM, timed&matched, 10')	SLAC	M&S	4	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$180.00	\$1,590.00	\$4,77
		SLAC M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0
35	1.2.1.7.6.8	Technician BPM initial calibration	SLAC	ED&I	4	1.3 wks	\$0.00	\$0.00	\$2,600.00	\$2,600.00	\$520.00	\$1,560.00	\$4,68
		SLAC Controls: Coordinator Assoc.		ED&I	0	1.3 wks	\$0.00	\$0.00	\$0.00	\$2,600.00	\$0.00	\$0.00	\$6
36	1.2.1.7.7	TOROIDS (6)			0	3.6 wks	\$0.00	\$41,000.00	\$6,744.16	\$47,744.16	\$3,808.83	\$7,732.95	\$59,285
87	1.2.1.7.7.1	CAMAC Module, TCM (6)	SLAC	ED&I	1	0.5 wks	\$0.00	\$0.00	\$1,000.00	\$1,000.00	\$200.00	\$180.00	\$1,380
		SLAC Controls: Coordinator Assoc.		ED&I	0	0.5 wks	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0

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ID 688	CWBS 1.2.1.7.7.1	Task Name CAMAC Module, TCM (6)	OBS SLAC	PHASE M&S	Risk	Units 0 wks	PED (Direct) \$0.00	M&S (Direct) \$13,000.00	Labor (Direct) \$0.00	Direct Cost \$13,000.00	Overhead Cost \$780.00	Contingency Cost \$2,067.00	Total Cost \$15,847.00
		SLAC M&S Total		M&S	0	13,000	\$0.00	\$0.00	\$0.00	\$13,000.00	\$0.00	\$0.00	\$0.00
689	1.2.1.7.7.2		SLAC	ED&I			\$0.00	\$0.00	\$500.00	\$500.00	\$100.00		\$690.00
689	1.2.1.7.7.2	, , ,	SLAC		1	0.25 wks						\$90.00	
		SLAC Controls: Coordinator Assoc.		ED&I	0	0.25 wks	\$0.00	\$0.00	\$0.00	\$500.00	\$0.00	\$0.00	\$0.00
690	1.2.1.7.7.2	TCM PreAmps (6)	SLAC	M&S	1	0 wks	\$0.00	\$18,000.00	\$0.00	\$18,000.00	\$1,080.00	\$2,862.00	\$21,942.00
		SLAC M&S Total		M&S	0	18,000	\$0.00	\$0.00	\$0.00	\$18,000.00	\$0.00	\$0.00	\$0.00
691	1.2.1.7.7.3	Lead Shielding (12 Bricks/Unit) (6)	SLAC	B&H	1	1 wk	\$0.00	\$0.00	\$2,000.00	\$2,000.00	\$400.00	\$360.00	\$2,760.00
		SLACL PCD:Inst-Cabling-Elec Fab		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.00
692	1.2.1.7.7.3	Lead Shielding (12 Bricks/Unit) (6)	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219.00
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.00
693	1.2.1.7.7.4	Steel Covers (6)	SLAC	B&H	1	1.05 wks	\$0.00	\$0.00	\$1,841.28	\$1,841.28	\$368.26	\$331.43	\$2,540.97
		SLAC Controls: Technician		B&H	0	1.05 wks	\$0.00	\$0.00	\$0.00	\$1,841.28	\$0.00	\$0.00	\$0.00
694	1.2.1.7.7.4	Steel Covers (6)	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219.00
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.00
695	1.2.1.7.7.5	Platforms (6)	SLAC	B&H	1	0.74 wks	\$0.00	\$0.00	\$1,297.66	\$1,297.66	\$259.53	\$233.58	\$1,790.78
		SLAC Controls: Technician		B&H	0	0.74 wks	\$0.00	\$0.00	\$0.00	\$1,297.66	\$0.00	\$0.00	\$0.00
200	101775		81.40									.	
696	1.2.1.7.7.5	.,	SLAC	M&S	1	0 wks	\$0.00	\$600.00	\$0.00	\$600.00	\$36.00	\$95.40	\$731.4
		SLAC M&S Total		M&S	0	600	\$0.00	\$0.00	\$0.00	\$600.00	\$0.00	\$0.00	\$0.00
697	1.2.1.7.7.6	Adapter Box, RG22 to Twinax (2 each toroid)	SLAC	B&H	1	0.02 wks	\$0.00	\$0.00	\$35.07	\$35.07	\$7.01	\$6.31	\$48.40
		SLAC Controls: Technician		B&H	0	0.02 wks	\$0.00	\$0.00	\$0.00	\$35.07	\$0.00	\$0.00	\$0.00
698	1.2.1.7.7.6	Adapter Box, RG22 to Twinax (2 each toroid)	SLAC	M&S	1	0 wks	\$0.00	\$1,200.00	\$0.00	\$1,200.00	\$72.00	\$190.80	\$1,462.8
		SLAC M&S Total		M&S	0	1,200	\$0.00	\$0.00	\$0.00	\$1,200.00	\$0.00	\$0.00	\$0.00
699	1.2.1.7.7.7	RG22, TCM PreAmp to Toroid (1 each toroid))	SLAC	B&H	1	0.02 wks	\$0.00	\$0.00	\$35.07	\$35.07	\$7.01	\$6.31	\$48.4
		SLAC Controls: Technician		B&H	0	0.02 wks	\$0.00	\$0.00	\$0.00	\$35.07	\$0.00	\$0.00	\$0.00
700	1.2.1.7.7.7	RG22, TCM PreAmp to Toroid (1 each toroid))	SLAC	M&S	1	0 wks	\$0.00	\$600.00	\$0.00	\$600.00	\$36.00	\$95.40	\$731.4
		SLAC M&S Total		M&S	0	600	\$0.00	\$0.00	\$0.00	\$600.00	\$0.00	\$0.00	\$0.00
701	1.2.1.7.7.8	RG214, TCM PreAmp to Toroid (1)	SLAC	B&H	1	0.02 wks	\$0.00	\$0.00	\$35.07	\$35.07	\$7.01	\$6.31	\$48.40
		SLAC Controls: Technician		B&H	0	0.02 wks	\$0.00	\$0.00	\$0.00	\$35.07	\$0.00	\$0.00	\$0.00
702	1.2.1.7.7.8	RG214, TCM PreAmp to Toroid (1)	SLAC	M&S	1	0 wks	\$0.00	\$600.00	\$0.00	\$600.00	\$36.00	\$95.40	\$731.40
		SLAC M&S Total		M&S	0	600	\$0.00	\$0.00	\$0.00	\$600.00	\$0.00	\$0.00	\$0.00
703	1.2.1.7.7.9		SLAC	M&S	1	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$180.00	\$477.00	\$3,657.00
. 03	1.2.1.7.7.9		SLAC										\$0.00
70.1	404==	SLAC M&S Total	6: : 6	M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	
704	1.2.1.7.7.10		SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219.00
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.00
705	1.2.1.7.7.11	RG58, TCM to TCM PreAmp (1 each toroid))	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219.00

101	0	CD4	TEC
LUL		CUI	TEC

ID	CWBS	Task Name SLAC M&S Total	OBS	PHASE M&S	Risk	Units 1,000	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost \$1,000.00	Overhead Cost \$0.00	Contingency Cost \$0.00	Total Cost
				IVI&S	0		\$0.00	\$0.00					
06	1.2.1.7.8	FARADAY CUP (3)			0	1.12 wks	\$0.00	\$36,500.00	\$2,161.15	\$38,661.15	\$2,622.23	\$8,975.01	\$50,258
7	1.2.1.7.8.1	CAMAC Module, DAC (1)	SLAC	B&H	1	0.02 wks	\$0.00	\$0.00	\$35.07	\$35.07	\$7.01	\$6.31	\$48
		SLAC Controls: Technician		B&H	0	0.02 wks	\$0.00	\$0.00	\$0.00	\$35.07	\$0.00	\$0.00	\$0
08	1.2.1.7.8.1	CAMAC Module, DAC (1)	SLAC	M&S	1	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$180.00	\$477.00	\$3,65
\dashv		SLAC M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$
09	1.2.1.7.8.2	IDIM Module (2)	SLAC	B&H	1	0.04 wks	\$0.00	\$0.00	\$70.14	\$70.14	\$14.03	\$12.63	\$9
\dashv		SLAC Controls: Technician		B&H	0	0.04 wks	\$0.00	\$0.00	\$0.00	\$70.14	\$0.00	\$0.00	\$
10	1.2.1.7.8.2	IDIM Module (2)	SLAC	M&S	1	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$180.00	\$477.00	\$3,65
\dashv		SLAC M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$
11	1.2.1.7.8.3	IDOM Module (2)	SLAC	B&H	1	0.04 wks	\$0.00	\$0.00	\$70.14	\$70.14	\$14.03	\$12.63	\$9
\dashv		SLAC Controls: Technician		B&H	0	0.04 wks	\$0.00	\$0.00	\$0.00	\$70.14	\$0.00	\$0.00	\$
2	1.2.1.7.8.3	IDOM Module (2)	SLAC	M&S	1	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$180.00	\$477.00	\$3,65
\dashv		SLAC M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	
3	1.2.1.7.8.4	Profile monitor chassis (2)	SLAC	B&H	1	0.2 wks	\$0.00	\$0.00	\$350.72	\$350.72	\$70.14	\$63.13	\$48
_		SLAC Controls: Technician	02.10	B&H	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$350.72	\$0.00	\$0.00	.
4	1.2.1.7.8.4	Profile monitor chassis (2)	SLAC	M&S		0.2 wks	\$0.00	\$7,000.00	\$0.00	\$7,000.00	\$420.00	\$1,113.00	\$8,5
-	1.2.1.7.0.4	SLAC M&S Total	SLAC	M&S	0		\$0.00		\$0.00				
					0	7,000		\$0.00		\$7,000.00	\$0.00	\$0.00	\$
15	1.2.1.7.8.5	,	SLAC	ED&I	1	0.6 wks	\$0.00	\$0.00	\$1,200.00	\$1,200.00	\$240.00	\$216.00	\$1,65
		SLAC Controls: Coordinator Assoc.		ED&I	0	0.6 wks	\$0.00	\$0.00	\$0.00	\$1,200.00	\$0.00	\$0.00	\$
6	1.2.1.7.8.5	Profile Monitor Camera/Electronics (3)	SLAC	M&S	1	0 wks	\$0.00	\$9,000.00	\$0.00	\$9,000.00	\$540.00	\$1,431.00	\$10,97
		SLAC M&S Total		M&S	0	9,000	\$0.00	\$0.00	\$0.00	\$9,000.00	\$0.00	\$0.00	\$
17	1.2.1.7.8.6	Profile Monitor Lamp Units (3)	SLAC	ED&I	1	0.2 wks	\$0.00	\$0.00	\$400.00	\$400.00	\$80.00	\$72.00	\$55
\dashv		SLAC Controls: Coordinator Assoc.		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$400.00	\$0.00	\$0.00	9
8	1.2.1.7.8.6	Profile Monitor Lamp Units (3)	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,21
\dashv		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$
9	1.2.1.7.8.7	GADC, LeCroy	SLAC	B&H	1	0.02 wks	\$0.00	\$0.00	\$35.07	\$35.07	\$7.01	\$6.31	\$4
\dashv		SLAC Controls: Technician		B&H	0	0.02 wks	\$0.00	\$0.00	\$0.00	\$35.07	\$0.00	\$0.00	\$
20	1.2.1.7.8.7	GADC, LeCroy	SLAC	M&S	1	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$180.00	\$477.00	\$3,65
\dashv		SLAC M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$
1	1.2.1.7.8.8	RG214, coax (3ea) Chassis to Faraday Cup	SLAC	M&S	4	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$530.00	\$1,59
4		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$.,
22	1.2.1.7.8.9	RG214, coax (3ea) Chassis to Faraday Cup	SLAC	M&S	4	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$530.00	\$1,59
_	2.1.7.0.9	SLAC M&S Total	02/10	M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$1,55
_													
723	1.2.1.7.8.10	Multi-conductor (8/C) Chassis to Faraday Cup	SLAC	M&S	4	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$1,060.00	\$

101	0	CD4	TEC
LUL		CUI	TEC

ID	CWBS	Task Name SLAC M&S Total	OBS	PHASE M&S	Risk	Units 2,000	PED (Direct) \$0.00	M&S (Direct) \$0.00	Labor (Direct)	Direct Cost \$2,000.00	Overhead Cost \$0.00	Contingency Cost \$0.00	Total Cost \$0.
					0								
24	1.2.1.7.8.11	Multi-conductor (8/C) Chassis to Faraday Cup	SLAC	M&S	4	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$1,060.00	\$3,180.
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.
25	1.2.1.7.8.12	CAMAC cable IDIM (3ea) Chassis to Crate	SLAC	M&S	4	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$530.00	\$1,590
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0
26	1.2.1.7.8.13	CAMAC cable IDOM (2ea) Chassis to Crate	SLAC	M&S	4	0 wks	\$0.00	\$200.00	\$0.00	\$200.00	\$12.00	\$106.00	\$318
\dashv		SLAC M&S Total		M&S	0	200	\$0.00	\$0.00	\$0.00	\$200.00	\$0.00	\$0.00	\$0
27	1.2.1.7.8.14	Wiring of Faraday Cup units in lab (3)	SLAC	M&S	4	0 wks	\$0.00	\$300.00	\$0.00	\$300.00	\$18.00	\$159.00	\$47
		SLAC M&S Total		M&S	0	300	\$0.00	\$0.00	\$0.00	\$300.00	\$0.00	\$0.00	\$0
28	1.2.1.7.9	PROFILE MONITORS (7) / COLLIMATOR (1)			0	10.64 wks	\$0.00	\$95,500.00	\$20,974.46	\$116,474.46	\$9,924.89	\$23,301.12	\$149,700
29	1.2.1.7.9.1	CAMAC Module, DAC (1)	SLAC	B&H	1	0.02 wks	\$0.00	\$0.00	\$35.07	\$35.07	\$7.01	\$6.31	\$4
		SLAC Controls: Technician		B&H	0	0.02 wks	\$0.00	\$0.00	\$0.00	\$35.07	\$0.00	\$0.00	\$
30	1.2.1.7.9.1	CAMAC Module, DAC (1)	SLAC	M&S	1	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$318.00	\$2,43
\dashv		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$
31	1.2.1.7.9.2	CAMAC Module, IDIM (4)	SLAC	B&H	1	0.02 wks	\$0.00	\$0.00	\$35.07	\$35.07	\$7.01	\$6.31	\$4
\dashv		SLAC Controls: Technician		B&H	0	0.02 wks	\$0.00	\$0.00	\$0.00	\$35.07	\$0.00	\$0.00	\$
2	1.2.1.7.9.2	CAMAC Module, IDIM (4)	SLAC	M&S	1	0 wks	\$0.00	\$6,000.00	\$0.00	\$6,000.00	\$360.00	\$954.00	\$7,31
_		SLAC M&S Total		M&S	0	6,000	\$0.00	\$0.00	\$0.00	\$6,000.00	\$0.00	\$0.00	\$
33	1.2.1.7.9.3		SLAC	B&H	1	0.02 wks	\$0.00	\$0.00	\$35.07	\$35.07	\$7.01	\$6.31	\$4
	1.2.1.7.0.0	,	OENO	B&H	0	0.02 wks	\$0.00	\$0.00	\$0.00	\$35.07	\$0.00	\$0.00	\$
		SLAC Controls: Technician			0								
34	1.2.1.7.9.3		SLAC	M&S	1	0 wks	\$0.00	\$5,000.00	\$0.00	\$5,000.00	\$300.00	\$795.00	\$6,09
		SLAC M&S Total		M&S	0	5,000	\$0.00	\$0.00	\$0.00	\$5,000.00	\$0.00	\$0.00	\$
35	1.2.1.7.9.4	, ,	SLAC	B&H	1	0.02 wks	\$0.00	\$0.00	\$35.07	\$35.07	\$7.01	\$6.31	\$4
		SLAC Controls: Technician		B&H	0	0.02 wks	\$0.00	\$0.00	\$0.00	\$35.07	\$0.00	\$0.00	\$
36	1.2.1.7.9.4	Video Modulator Chassis (7)	SLAC	M&S	1	0 wks	\$0.00	\$7,000.00	\$0.00	\$7,000.00	\$420.00	\$1,113.00	\$8,53
		SLAC M&S Total		M&S	0	7,000	\$0.00	\$0.00	\$0.00	\$7,000.00	\$0.00	\$0.00	\$
37	1.2.1.7.9.5	16 Channel Interface Chassis (1)	SLAC	B&H	2	0.02 wks	\$0.00	\$0.00	\$35.07	\$35.07	\$7.01	\$10.52	\$5
		SLAC Controls: Technician		B&H	0	0.02 wks	\$0.00	\$0.00	\$0.00	\$35.07	\$0.00	\$0.00	\$
88	1.2.1.7.9.5	16 Channel Interface Chassis (1)	SLAC	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$265.00	\$1,32
\dashv		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$
89	1.2.1.7.9.6	Profile Monitor Lamp Units (7)	SLAC	B&H	1	0.5 wks	\$0.00	\$0.00	\$876.80	\$876.80	\$175.36	\$157.82	\$1,20
\dashv		SLAC Controls: Technician		B&H	0	0.5 wks	\$0.00	\$0.00	\$0.00	\$876.80	\$0.00	\$0.00	\$
10	1.2.1.7.9.6	Profile Monitor Lamp Units (7)	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,21
_		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$
11	1.2.1.7.9.7	Profile Monitor Chassis (4)	SLAC	B&H		0.5 wks	\$0.00	\$0.00	\$876.80	\$876.80	\$175.36	\$157.82	\$1,20

101	0	CD4	TEC
LUL		CUI	TEC

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ID	CWBS	Task Name SLAC Controls: Technician	OBS	PHASE B&H	Risk	Units 0.5 wks	PED (Direct) \$0.00	M&S (Direct) \$0.00	Labor (Direct)	Direct Cost \$876.80	Overhead Cost \$0.00	Contingency Cost \$0.00	Total Cost
					0								
742	1.2.1.7.9.7	Profile Monitor Chassis (4)	SLAC	M&S	1	0 wks	\$0.00	\$18,000.00	\$0.00	\$18,000.00	\$1,080.00	\$2,862.00	\$21,942.
		SLAC M&S Total		M&S	0	18,000	\$0.00	\$0.00	\$0.00	\$18,000.00	\$0.00	\$0.00	\$0.
'43	1.2.1.7.9.8	Profile Monitor Camera/Electronics (7)	SLAC	ED&I	2	4 wks	\$0.00	\$0.00	\$8,000.00	\$8,000.00	\$1,600.00	\$2,400.00	\$12,000.
		SLAC Controls: Coordinator Assoc.		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$8,000.00	\$0.00	\$0.00	\$0.
744	1.2.1.7.9.8	Profile Monitor Camera/Electronics (7)	SLAC	M&S	2	0 wks	\$0.00	\$21,000.00	\$0.00	\$21,000.00	\$1,260.00	\$5,565.00	\$27,825.
		SLAC M&S Total		M&S	0	21,000	\$0.00	\$0.00	\$0.00	\$21,000.00	\$0.00	\$0.00	\$0.
745	1.2.1.7.9.9	RG59, coax-video (7)	SLAC	M&S	1	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$318.00	\$2,438.
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.
746	1.2.1.7.9.10	Multi-conductor (21C/16GA-CONT&STAT) (7)	SLAC	M&S	1	0 wks	\$0.00	\$5,000.00	\$0.00	\$5,000.00	\$300.00	\$795.00	\$6,095.
		SLAC M&S Total		M&S	0	5,000	\$0.00	\$0.00	\$0.00	\$5,000.00	\$0.00	\$0.00	\$0.
47	1.2.1.7.9.11	Multi-conductor (3C/16GA-AC POWER) (7)	SLAC	M&S	1	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$318.00	\$2,438.
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.
748	1.2.1.7.9.12	CAMAC cable IDIM (8)	SLAC	B&H	1	0.2 wks	\$0.00	\$0.00	\$400.00	\$400.00	\$80.00	\$72.00	\$552
		SLACL PCD:Inst-Cabling-Elec Fab		B&H	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$400.00	\$0.00	\$0.00	\$0.
49	1.2.1.7.9.12	-	SLAC	M&S	1	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$318.00	\$2,438
49	1.2.1.7.9.12		SLAC										
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.
750	1.2.1.7.9.13		SLAC	B&H	1	0.2 wks	\$0.00	\$0.00	\$400.00	\$400.00	\$80.00	\$72.00	\$552
		SLACL PCD:Inst-Cabling-Elec Fab		B&H	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$400.00	\$0.00	\$0.00	\$0.
751	1.2.1.7.9.13	CAMAC cable IDOM (8)	SLAC	M&S	1	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$318.00	\$2,438
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.
752	1.2.1.7.9.14	CAMAC cable DAC (1)	SLAC	ED&I	1	4 wks	\$0.00	\$0.00	\$8,000.00	\$8,000.00	\$1,600.00	\$1,440.00	\$11,040.
		SLAC Controls: Coordinator Assoc.		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$8,000.00	\$0.00	\$0.00	\$0.
753	1.2.1.7.9.14	CAMAC cable DAC (1)	SLAC	M&S	1	0 wks	\$0.00	\$200.00	\$0.00	\$200.00	\$12.00	\$31.80	\$243.
		SLAC M&S Total		M&S	0	200	\$0.00	\$0.00	\$0.00	\$200.00	\$0.00	\$0.00	\$0.
754	1.2.1.7.9.15	WIRING OF PROFILE MONT. ASSEMBLY IN LAB (7)	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219.
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.
755	1.2.1.7.9.16	Collimator (1)	SLAC		0	1.14 wks	\$0.00	\$20,300.00	\$2,245.50	\$22,545.50	\$1,667.10	\$4,676.90	\$28,889.
756	1.2.1.7.9.16.1	DATRONICS Controller (MN 10k-1, 7 slots) (1)	SLAC	B&H	1	0.02 wks	\$0.00	\$0.00	\$35.07	\$35.07	\$7.01	\$6.31	\$48.
		SLAC Controls: Technician		B&H	0	0.02 wks	\$0.00	\$0.00	\$0.00	\$35.07	\$0.00	\$0.00	\$0.
57	1.2.1.7.9.16.1	DATRONICS Controller (MN 10k-1, 7 slots) (1)	SLAC	M&S	1	0 wks	\$0.00	\$4,000.00	\$0.00	\$4,000.00	\$240.00	\$636.00	\$4,876
		SLAC M&S Total		M&S	0	4,000	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$0.
750	1.2.1.7.9.16.2		SLAC	B&H		0.02 wks	\$0.00	\$0.00	\$35.07	\$35.07	\$7.01	\$6.31	\$48
30	1.2.1.7.9.16.2		SLAC		1								
		SLAC Controls: Technician		B&H	0	0.02 wks	\$0.00	\$0.00	\$0.00	\$35.07	\$0.00	\$0.00	\$0.
759	1.2.1.7.9.16.2	10 Channel Resistor Interface Chassis (1)	SLAC	M&S	1	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$180.00	\$477.00	\$3,657.

ID	CWBS	Task Name	OBS	PHASE M&S	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		SLAC M&S Total			0	3,000		\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0.0
7 60	1.2.1.7.9.16.3	16 Channel Stepper Motor Controller Ch. (1)	SLAC	B&H	1	0.02 wks		\$0.00	\$35.07	\$35.07	\$7.01	\$6.31	\$48.4
		SLAC Controls: Technician		B&H	0	0.02 wks	\$0.00	\$0.00	\$0.00	\$35.07	\$0.00	\$0.00	\$0.
'61	1.2.1.7.9.16.3	16 Channel Stepper Motor Controller Ch. (1)	SLAC	M&S	1	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$180.00	\$477.00	\$3,657.
		SLAC M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0.
762	1.2.1.7.9.16.4	16 Channel Interface Chassis (1)	SLAC	B&H	1	0.02 wks	\$0.00	\$0.00	\$35.07	\$35.07	\$7.01	\$6.31	\$48.
		SLAC Controls: Technician		B&H	0	0.02 wks	\$0.00	\$0.00	\$0.00	\$35.07	\$0.00	\$0.00	\$0.
63	1.2.1.7.9.16.4	16 Channel Interface Chassis (1)	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219.
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.
764	1.2.1.7.9.16.5	CAMAC Module,MMC (1)	SLAC	B&H	2	0.02 wks	\$0.00	\$0.00	\$35.07	\$35.07	\$7.01	\$10.52	\$52.
		SLAC Controls: Technician		B&H	0	0.02 wks	\$0.00	\$0.00	\$0.00	\$35.07	\$0.00	\$0.00	\$0.
765	1.2.1.7.9.16.5	CAMAC Module,MMC (1)	SLAC	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$265.00	\$1,325.
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.
766	1.2.1.7.9.16.6	CAMAC Module, IDIM (1)	SLAC	B&H	1	0.02 wks	\$0.00	\$0.00	\$35.07	\$35.07	\$7.01	\$6.31	\$48
		SLAC Controls: Technician		B&H	0	0.02 wks	\$0.00	\$0.00	\$0.00	\$35.07	\$0.00	\$0.00	\$0.
67	1.2.1.7.9.16.6	CAMAC Module, IDIM (1)	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.
68	1.2.1.7.9.16.7	CAMAC Module, SAM (1)	SLAC	B&H	1	0.02 wks	\$0.00	\$0.00	\$35.07	\$35.07	\$7.01	\$6.31	\$48
		SLAC Controls: Technician		B&H	0	0.02 wks	\$0.00	\$0.00	\$0.00	\$35.07	\$0.00	\$0.00	\$0.
769	1.2.1.7.9.16.7	CAMAC Module, SAM (1)	SLAC	M&S	1	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$318.00	\$2,438
		SLAC M&S Total		M&S	0	2,000		\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.
770	1.2.1.7.9.16.8		SLAC	ED&I	1	0.02 wks		\$0.00	\$40.00	\$40.00	\$8.00	\$7.20	\$55
	112.117.0170.0	SLAC Controls: Coordinator Assoc.	02/10	ED&I	0	0.02 wks		\$0.00	\$0.00	\$40.00	\$0.00	\$0.00	\$0.
771	1.2.1.7.9.16.8		SLAC	M&S	1	0.02 WKS		\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219.
	1.2.1.7.9.10.0	SLAC M&S Total	SLAC	M&S	0	1,000	, , , , , ,	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.
			81.10									,	
72	1.2.1.7.9.16.9		SLAC	M&S	3	0 wks		\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$371.00	\$1,431.
		SLAC M&S Total		M&S	0	1,000		\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.
73	2.1.7.9.16.10		SLAC	M&S	3	0 wks		\$300.00	\$0.00	\$300.00	\$18.00	\$111.30	\$429
		SLAC M&S Total		M&S	0	300		\$0.00	\$0.00	\$300.00	\$0.00	\$0.00	\$0.
74	2.1.7.9.16.11	MULTI-COND (4PR) DATRONIC TO LVDT	SLAC	M&S	3	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$371.00	\$1,431
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.
775	2.1.7.9.16.12	MULTI-COND (2/C) DATRONIC TO16 CHNL DIST.	SLAC	B&H	2	0.03 wks	\$0.00	\$0.00	\$60.00	\$60.00	\$12.00	\$18.00	\$90
		SLACL PCD:Inst-Cabling-Elec Fab		B&H	0	0.03 wks	\$0.00	\$0.00	\$0.00	\$60.00	\$0.00	\$0.00	\$0.
776	2.1.7.9.16.12	MULTI-COND (2/C) DATRONIC TO16 CHNL DIST.	SLAC	M&S	2	0 wks	\$0.00	\$200.00	\$0.00	\$200.00	\$12.00	\$53.00	\$265
	-	SLAC M&S Total		M&S	0	200	\$0.00	\$0.00	\$0.00	\$200.00	\$0.00	\$0.00	\$0.

101	0	CD4	TEC
LUL		CUI	TEC

ID		Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
777	2.1.7.9.16.13	MULTI-COND (12/C) REST. CH. TO 16 Ch. Stpr. Ch.	SLAC	B&H	2	0.03 wks	\$0.00	\$0.00	\$60.00	\$60.00	\$12.00	\$18.00	\$90.0
		SLACL PCD:Inst-Cabling-Elec Fab		B&H	0	0.03 wks	\$0.00	\$0.00	\$0.00	\$60.00	\$0.00	\$0.00	\$0.0
78	2.1.7.9.16.13	MULTI-COND (12/C) REST. CH. TO 16 Ch. Stpr. Ch.	SLAC	M&S	2	0 wks	\$0.00	\$200.00	\$0.00	\$200.00	\$12.00	\$53.00	\$265.
		SLAC M&S Total		M&S	0	200	\$0.00	\$0.00	\$0.00	\$200.00	\$0.00	\$0.00	\$0.0
79	2.1.7.9.16.14	MULTI-COND (12/C) REST. CH. TO COLLIMATOR	SLAC	ED&I	2	0.32 wks	\$0.00	\$0.00	\$640.00	\$640.00	\$128.00	\$192.00	\$960.
		SLAC Controls: Coordinator Assoc.		ED&I	0	0.32 wks	\$0.00	\$0.00	\$0.00	\$640.00	\$0.00	\$0.00	\$0.
80	2.1.7.9.16.14	MULTI-COND (12/C) REST. CH. TO COLLIMATOR	SLAC	M&S	2	0 wks	\$0.00	\$400.00	\$0.00	\$400.00	\$24.00	\$106.00	\$530
		SLAC M&S Total		M&S	0	400	\$0.00	\$0.00	\$0.00	\$400.00	\$0.00	\$0.00	\$0.
81	2.1.7.9.16.15	CAMAC CABLE (36/C)16 CHNL DIST. TO IDIM	SLAC	B&H	2	0.2 wks	\$0.00	\$0.00	\$400.00	\$400.00	\$80.00	\$120.00	\$600
		SLACL PCD:Inst-Cabling-Elec Fab		B&H	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$400.00	\$0.00	\$0.00	\$0.
82	2.1.7.9.16.15		SLAC	M&S	2	0 wks	\$0.00	\$200.00	\$0.00	\$200.00	\$12.00	\$53.00	\$265
		SLAC M&S Total		M&S	0	200	\$0.00	\$0.00	\$0.00	\$200.00	\$0.00	\$0.00	\$0.
02	2.1.7.9.16.16	CAMAC CABLE (36/C)16 CHNL STPR Ch. TO MMC	SLAC	B&H	2	0.2 wks	\$0.00	\$0.00	\$400.00	\$400.00	\$80.00	\$120.00	\$600
03	2.1.7.9.10.10		SLAC	B&H			\$0.00		\$0.00				
		SLACL PCD:Inst-Cabling-Elec Fab			0	0.2 wks	, , , , ,	\$0.00	,,,,,	\$400.00	\$0.00	\$0.00	\$0
84	2.1.7.9.16.16	CAMAC CABLE (36/C)16 CHNL STPR Ch. TO MMC	SLAC	M&S	2	0 wks	\$0.00	\$200.00	\$0.00	\$200.00	\$12.00	\$53.00	\$265
		SLAC M&S Total		M&S	0	200	\$0.00	\$0.00	\$0.00	\$200.00	\$0.00	\$0.00	\$0
85	2.1.7.9.16.17	CAMAC CABLE (36/C)16 CHNL DIST Ch. TO SAM	SLAC	B&H	2	0.2 wks	\$0.00	\$0.00	\$400.00	\$400.00	\$80.00	\$120.00	\$600
		SLACL PCD:Inst-Cabling-Elec Fab		B&H	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$400.00	\$0.00	\$0.00	\$0
86	2.1.7.9.16.17	CAMAC CABLE (36/C)16 CHNL DIST Ch. TO SAM	SLAC	M&S	2	0 wks	\$0.00	\$200.00	\$0.00	\$200.00	\$12.00	\$53.00	\$265
		SLAC M&S Total		M&S	0	200	\$0.00	\$0.00	\$0.00	\$200.00	\$0.00	\$0.00	\$0
87	2.1.7.9.16.18	WIRING OF COLLIMATOR ASSEMBLY IN LAB (7)	SLAC	M&S	2	0 wks	\$0.00	\$600.00	\$0.00	\$600.00	\$36.00	\$159.00	\$795
		SLAC M&S Total		M&S	0	600	\$0.00	\$0.00	\$0.00	\$600.00	\$0.00	\$0.00	\$0
88	1.2.1.7.10	E-O Diagnostic			0	41.06 wks	\$0.00	\$5,200.00	\$103,047.87	\$108,247.87	\$20,921.57	\$43,628.86	\$172,798.
89	1.2.1.7.10.1	Profile Monitor Camera/Electronics	SLAC	ED&I	1	0.5 wks	\$0.00	\$0.00	\$1,000.00	\$1,000.00	\$200.00	\$180.00	\$1,380
		SLAC Controls: Coordinator Assoc.		ED&I	0	0.5 wks	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0
90	1.2.1.7.10.1	Profile Monitor Camera/Electronics	SLAC	M&S	1	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$180.00	\$477.00	\$3,657
		SLAC M&S Total	UL/10	M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0
91	1.2.1.7.10.2		SLAC	ED&I	3	40 wks	\$0.00	\$0.00	\$101,056.00	\$101,056.00	\$20,211.20	\$42,443.52	\$163,710
91	1.2.1.7.10.2	· ·	SLAC				,,,,,,						
		SLAC Controls: Programmer		ED&I	0	40 wks	\$0.00	\$0.00	\$0.00	\$101,056.00	\$0.00	\$0.00	\$0
92	1.2.1.7.10.3		SLAC	B&H	1	0.02 wks	\$0.00	\$0.00	\$35.07	\$35.07	\$7.01	\$6.31	\$48
		SLAC Controls: Technician		B&H	0	0.02 wks	\$0.00	\$0.00	\$0.00	\$35.07	\$0.00	\$0.00	\$0
93	1.2.1.7.10.3	CAMAC Module,IDOM (1)	SLAC	M&S	1	0 wks	\$0.00	\$1,200.00	\$0.00	\$1,200.00	\$72.00	\$190.80	\$1,462
		SLAC M&S Total		M&S	0	1,200	\$0.00	\$0.00	\$0.00	\$1,200.00	\$0.00	\$0.00	\$0
94	1.2.1.7.10.4	CAMAC cable IDOM (1)	SLAC	B&H	1	0.02 wks	\$0.00	\$0.00	\$40.00	\$40.00	\$8.00	\$7.20	\$55
		SLACL PCD:Inst-Cabling-Elec Fab	-	B&H	0	0.02 wks	\$0.00	\$0.00	\$0.00	\$40.00	\$0.00	\$0.00	\$0.

101	0	CD4	TEC
LUL		CUI	TEC

	1	T											
ID 795	CWBS 1.2.1.7.10.4	Task Name CAMAC cable IDOM (1)	OBS SLAC	PHASE M&S	Risk	Units 0 wks	PED (Direct) \$0.00	M&S (Direct) \$200.00	Labor (Direct)	Direct Cost \$200.00	Overhead Cost \$12.00	Contingency Cost \$31.80	Total Cost \$243.8
195	1.2.1.7.10.4		SLAC		'								
		SLAC M&S Total		M&S	0	200	\$0.00	\$0.00	\$0.00	\$200.00	\$0.00	\$0.00	\$0.0
796	1.2.1.7.10.4	CAMAC cable IDOM (1)	SLAC	B&H	1	0.02 wks	\$0.00	\$0.00	\$40.00	\$40.00	\$8.00	\$7.20	\$55.2
		SLACL PCD:Inst-Cabling-Elec Fab		B&H	0	0.02 wks	\$0.00	\$0.00	\$0.00	\$40.00	\$0.00	\$0.00	\$0.0
797	1.2.1.7.10.4	CAMAC cable IDOM (1)	SLAC	M&S	1	0 wks	\$0.00	\$200.00	\$0.00	\$200.00	\$12.00	\$31.80	\$243.8
		SLAC M&S Total		M&S	0	200	\$0.00	\$0.00	\$0.00	\$200.00	\$0.00	\$0.00	\$0.0
798	1.2.1.7.10.5	Actuator/Attenuator Interface panel	SLAC	B&H	1	0.5 wks	\$0.00	\$0.00	\$876.80	\$876.80	\$175.36	\$157.82	\$1,209.9
		SLAC Controls: Technician		B&H	0	0.5 wks	\$0.00	\$0.00	\$0.00	\$876.80	\$0.00	\$0.00	\$0.0
799	1.2.1.7.10.6	Multi-Cond. cable (4PR)	SLAC	M&S	1	0 wks	\$0.00	\$600.00	\$0.00	\$600.00	\$36.00	\$95.40	\$731.4
		SLAC M&S Total		M&S	0	600	\$0.00	\$0.00	\$0.00	\$600.00	\$0.00	\$0.00	\$0.0
300	1.2.1.7.11	Gun & Injector System			0	2.08 wks	\$0.00	\$35,700.00	\$3,903.74	\$39,603.74	\$2,922.75	\$6,378.97	\$48,905.4
801	1.2.1.7.11.1	Laser Control & Interlock Chassis (2)	SLAC	ED&I	1	0.5 wks	\$0.00	\$0.00	\$1,000.00	\$1,000.00	\$200.00	\$180.00	\$1,380.
		SLAC Controls: Coordinator Assoc.		ED&I	0	0.5 wks	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.0
802	1.2.1.7.11.1	Laser Control & Interlock Chassis (2)	SLAC	M&S	1	0 wks	\$0.00	\$20,000.00	\$0.00	\$20,000.00	\$1,200.00	\$3,180.00	\$24,380.
		SLAC M&S Total		M&S	0	20,000	\$0.00	\$0.00	\$0.00	\$20,000.00	\$0.00	\$0.00	\$0.
03	1.2.1.7.11.2	Stepper Motor Controller Chassis (1)	SLAC	B&H	1	0.02 wks	\$0.00	\$0.00	\$35.07	\$35.07	\$7.01	\$6.31	\$48.
		SLAC Controls: Technician		В&Н	0	0.02 wks	\$0.00	\$0.00	\$0.00	\$35.07	\$0.00	\$0.00	\$0.
804	1.2.1.7.11.2	Stepper Motor Controller Chassis (1)	SLAC	M&S	1	0 wks	\$0.00	\$5,000.00	\$0.00	\$5,000.00	\$300.00	\$795.00	\$6,095.
		SLAC M&S Total		M&S	0	5,000	\$0.00	\$0.00	\$0.00	\$5,000.00	\$0.00	\$0.00	\$0.
805	1.2.1.7.11.3	DC Power Supply, Stepper Motor System (1)	SLAC	B&H	1	0.02 wks	\$0.00	\$0.00	\$40.00	\$40.00	\$8.00	\$7.20	\$55.
		SLACL PCD:Inst-Cabling-Elec Fab		B&H	0	0.02 wks	\$0.00	\$0.00	\$0.00	\$40.00	\$0.00	\$0.00	\$0.
806	1.2.1.7.11.3	DC Power Supply, Stepper Motor System (1)	SLAC	M&S	1	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$180.00	\$477.00	\$3,657.
		SLAC M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0.
307	1.2.1.7.11.4	CAMAC Module, MMC (1)	SLAC	B&H	1	0.5 wks	\$0.00	\$0.00	\$876.80	\$876.80	\$175.36	\$157.82	\$1,209.
		SLAC Controls: Technician		В&Н	0	0.5 wks	\$0.00	\$0.00	\$0.00	\$876.80	\$0.00	\$0.00	\$0.
808	1.2.1.7.11.4	CAMAC Module, MMC (1)	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219.
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.0
309	1.2.1.7.11.5	CAMAC Module, SAM (1)	SLAC		1	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
310	1.2.1.7.11.5	CAMAC Module, SAM (1)	SLAC	M&S	1	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$318.00	\$2,438.
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.
11	1.2.1.7.11.6	CAMAC Module, IDOM (1)	SLAC	M&S	1	0 wks	\$0.00	\$1,200.00	\$0.00	\$1,200.00	\$72.00	\$190.80	\$1,462.
		SLAC M&S Total		M&S	0	1,200	\$0.00	\$0.00	\$0.00	\$1,200.00	\$0.00	\$0.00	\$0.
312	1.2.1.7.11.7	CAMAC Module, IDIM (1)	SLAC	ED&I	1	0.5 wks	\$0.00	\$0.00	\$1,000.00	\$1,000.00	\$200.00	\$180.00	\$1,380.
		SLAC Controls: Coordinator Assoc.		ED&I	0	0.5 wks	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.
313	1.2.1.7.11.7	CAMAC Module, IDIM (1)	SLAC	M&S	1	0 wks	\$0.00	\$1,500.00	\$0.00	\$1,500.00	\$90.00	\$238.50	\$1,828.

101	0	CD4	TEC
LUL		CUI	TEC

ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		SLAC M&S Total		M&S	0	1,500	\$0.00	\$0.00	\$0.00	\$1,500.00	\$0.00	\$0.00	\$0.0
814	1.2.1.7.11.8	Gun Control Chassis CableS (6)	SLAC	B&H	1	0.02 wks	\$0.00	\$0.00	\$35.07	\$35.07	\$7.01	\$6.31	\$48.4
		SLAC Controls: Technician		B&H	0	0.02 wks	\$0.00	\$0.00	\$0.00	\$35.07	\$0.00	\$0.00	\$0.0
815	1.2.1.7.11.8	Gun Control Chassis CableS (6)	SLAC	M&S	1	0 wks	\$0.00	\$1,200.00	\$0.00	\$1,200.00	\$72.00	\$190.80	\$1,462.8
		SLAC M&S Total		M&S	0	1,200	\$0.00	\$0.00	\$0.00	\$1,200.00	\$0.00	\$0.00	\$0.0
816	1.2.1.7.11.9	CAMAC cable MMC (1)	SLAC	B&H	1	0.02 wks	\$0.00	\$0.00	\$40.00	\$40.00	\$8.00	\$7.20	\$55.2
		SLACL PCD:Inst-Cabling-Elec Fab		B&H	0	0.02 wks	\$0.00	\$0.00	\$0.00	\$40.00	\$0.00	\$0.00	\$0.0
817	1.2.1.7.11.9	CAMAC cable MMC (1)	SLAC	M&S	1	0 wks	\$0.00	\$200.00	\$0.00	\$200.00	\$12.00	\$31.80	\$243.8
		SLAC M&S Total		M&S	0	200	\$0.00	\$0.00	\$0.00	\$200.00	\$0.00	\$0.00	\$0.0
818	1.2.1.7.11.10	CAMAC cable SAM (1)	SLAC	B&H	1	0.5 wks	\$0.00	\$0.00	\$876.80	\$876.80	\$175.36	\$157.82	\$1,209.9
		SLAC Controls: Technician		B&H	0	0.5 wks	\$0.00	\$0.00	\$0.00	\$876.80	\$0.00	\$0.00	\$0.0
819	1.2.1.7.11.10	CAMAC cable SAM (1)	SLAC	M&S	1	0 wks	\$0.00	\$200.00	\$0.00	\$200.00	\$12.00	\$31.80	\$243.8
		SLAC M&S Total		M&S	0	200	\$0.00	\$0.00	\$0.00	\$200.00	\$0.00	\$0.00	\$0.0
820	1.2.1.7.11.11	CAMAC cable ID0M (1)	SLAC	M&S	1	0 wks	\$0.00	\$200.00	\$0.00	\$200.00	\$12.00	\$31.80	\$243.8
		SLAC M&S Total		M&S	0	200	\$0.00	\$0.00	\$0.00	\$200.00	\$0.00	\$0.00	\$0.0
821	1.2.1.7.11.12		SLAC	M&S	1	0 wks	\$0.00	\$200.00	\$0.00	\$200.00	\$12.00	\$31.80	\$243.8
		SLAC M&S Total		M&S	0	200	\$0.00	\$0.00	\$0.00	\$200.00	\$0.00	\$0.00	\$0.0
822	1.2.1.7.12				0	1.04 wks	\$0.00	\$5,000.00	\$1,951.87	\$6,951.87	\$690.37	\$1,794.77	\$9,437.0
823	1.2.1.7.12.1	Actuator/Attenuator Interface panel	SLAC	B&H	3	0.5 wks	\$0.00	\$0.00	\$876.80	\$876.80	\$175.36	\$368.26	\$1,420.4
020	1.2.1.7.12.1	SLAC Controls: Technician	OL/10	B&H	0	0.5 wks	\$0.00	\$0.00	\$0.00	\$876.80	\$0.00	\$0.00	\$0.0
00.4	1017100		01.40										
824	1.2.1.7.12.2		SLAC	ED&I	2	0.5 wks	\$0.00	\$0.00	\$1,000.00	\$1,000.00	\$200.00	\$300.00	\$1,500.0
		SLAC Controls: Coordinator Assoc.		ED&I	0	0.5 wks	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.0
825	1.2.1.7.12.2		SLAC	M&S	2	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$180.00	\$795.00	\$3,975.0
		SLAC M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0.0
826	1.2.1.7.12.3	CAMAC Module,IDOM (1)	SLAC	B&H	1	0.02 wks	\$0.00	\$0.00	\$35.07	\$35.07	\$7.01	\$6.31	\$48.4
		SLAC Controls: Technician		B&H	0	0.02 wks	\$0.00	\$0.00	\$0.00	\$35.07	\$0.00	\$0.00	\$0.0
827	1.2.1.7.12.3	CAMAC Module,IDOM (1)	SLAC	M&S	1	0 wks	\$0.00	\$1,200.00	\$0.00	\$1,200.00	\$72.00	\$190.80	\$1,462.8
		SLAC M&S Total		M&S	0	1,200	\$0.00	\$0.00	\$0.00	\$1,200.00	\$0.00	\$0.00	\$0.0
828	1.2.1.7.12.4	CAMAC cable IDOM (1)	SLAC	B&H	1	0.02 wks	\$0.00	\$0.00	\$40.00	\$40.00	\$8.00	\$7.20	\$55.2
		SLACL PCD:Inst-Cabling-Elec Fab		B&H	0	0.02 wks	\$0.00	\$0.00	\$0.00	\$40.00	\$0.00	\$0.00	\$0.0
829	1.2.1.7.12.4	CAMAC cable IDOM (1)	SLAC	M&S	1	0 wks	\$0.00	\$200.00	\$0.00	\$200.00	\$12.00	\$31.80	\$243.8
		SLAC M&S Total		M&S	0	200	\$0.00	\$0.00	\$0.00	\$200.00	\$0.00	\$0.00	\$0.0
830	1.2.1.7.12.5	MULTI-COND (4PR)	SLAC	M&S	1	0 wks	\$0.00	\$600.00	\$0.00	\$600.00	\$36.00	\$95.40	\$731.4
		SLAC M&S Total		M&S	0	600	\$0.00	\$0.00	\$0.00	\$600.00	\$0.00	\$0.00	\$0.0
831	1.2.1.7.13	RF Controls			0	4.2 wks	\$0.00	\$46,800.00	\$12,159.23	\$58.959.23	\$5,239,85	\$29.836.35	\$94,035.4

101	0	CD4	TEC
LUL		CUI	TEC

						LCLS_CD1_TEC	,						
ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
832	1.2.1.7.13.1	Sector 20	SLAC		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
833	1.2.1.7.13.2	RF Phase & Amplitude, BLM, Temp. Controls Hdw.	SLAC	ED&I	4	4 wks	\$0.00	\$0.00	\$11,788.80	\$11,788.80	\$2,357.76	\$7,073.28	\$21,219.84
		SLAC Controls: Engineer		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$11,788.80	\$0.00	\$0.00	\$0.00
834	1.2.1.7.13.2	RF Phase & Amplitude, BLM, Temp. Controls Hdw.	SLAC	M&S	4	0 wks	\$0.00	\$30,000.00	\$0.00	\$30,000.00	\$1,800.00	\$15,900.00	\$47,700.00
		SLAC M&S Total		M&S	0	30,000	\$0.00	\$0.00	\$0.00	\$30,000.00	\$0.00	\$0.00	\$0.00
835	1.2.1.7.13.3	CAMAC Module, GADC (1)	SLAC	В&Н	4	0.02 wks	\$0.00	\$0.00	\$35.07	\$35.07	\$7.01	\$21.04	\$63.13
		SLAC Controls: Technician		B&H	0	0.02 wks	\$0.00	\$0.00	\$0.00	\$35.07	\$0.00	\$0.00	\$0.00
836	1.2.1.7.13.3	CAMAC Module, GADC (1)	SLAC	M&S	4	0 wks	\$0.00	\$6,000.00	\$0.00	\$6,000.00	\$360.00	\$3,180.00	\$9,540.00
		SLAC M&S Total		M&S	0	6,000	\$0.00	\$0.00	\$0.00	\$6,000.00	\$0.00	\$0.00	\$0.00
837	1.2.1.7.13.4	CAMAC Module, DAC (1)	SLAC	B&H	4	0.02 wks	\$0.00	\$0.00	\$35.07	\$35.07	\$7.01	\$21.04	\$63.13
		SLAC Controls: Technician		B&H	0	0.02 wks	\$0.00	\$0.00	\$0.00	\$35.07	\$0.00	\$0.00	\$0.00
838	1.2.1.7.13.4	CAMAC Module, DAC (1)	SLAC	M&S	4	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$1,060.00	\$3,180.00
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.00
839	1.2.1.7.13.5	CAMAC Module, SAM (1)	SLAC	B&H	4	0.02 wks	\$0.00	\$0.00	\$35.07	\$35.07	\$7.01	\$21.04	\$63.13
		SLAC Controls: Technician		B&H	0	0.02 wks	\$0.00	\$0.00	\$0.00	\$35.07	\$0.00	\$0.00	\$0.00
840	1.2.1.7.13.5	CAMAC Module, SAM (1)	SLAC	M&S	4	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$1,060.00	\$3,180.00
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.00
841	1.2.1.7.13.6	CAMAC Module PAU (2)	SLAC	B&H	1	0.06 wks	\$0.00	\$0.00	\$105.22	\$105.22	\$21.04	\$18.94	\$145.20
		SLAC Controls: Technician		B&H	0	0.06 wks	\$0.00	\$0.00	\$0.00	\$105.22	\$0.00	\$0.00	\$0.00
842	1.2.1.7.13.6	CAMAC Module PAU (2)	SLAC	M&S	1	0 wks	\$0.00	\$5,000.00	\$0.00	\$5,000.00	\$300.00	\$795.00	\$6,095.00
		SLAC M&S Total		M&S	0	5,000	\$0.00	\$0.00	\$0.00	\$5,000.00	\$0.00	\$0.00	\$0.00
843	1.2.1.7.13.7	CAMAC cable GADC (2)	SLAC	B&H	1	0.02 wks	\$0.00	\$0.00	\$40.00	\$40.00	\$8.00	\$7.20	\$55.20
		SLACL PCD:Inst-Cabling-Elec Fab		B&H	0	0.02 wks	\$0.00	\$0.00	\$0.00	\$40.00	\$0.00	\$0.00	\$0.00
844	1.2.1.7.13.7	CAMAC cable GADC (2)	SLAC	M&S	1	0 wks	\$0.00	\$200.00	\$0.00	\$200.00	\$12.00	\$31.80	\$243.80
		SLAC M&S Total		M&S	0	200	\$0.00	\$0.00	\$0.00	\$200.00	\$0.00	\$0.00	\$0.00
845	1.2.1.7.13.8	CAMAC cable DAC (1)	SLAC	B&H	1	0.02 wks	\$0.00	\$0.00	\$40.00	\$40.00	\$8.00	\$7.20	\$55.20
		SLACL PCD:Inst-Cabling-Elec Fab		B&H	0	0.02 wks	\$0.00	\$0.00	\$0.00	\$40.00	\$0.00	\$0.00	\$0.00
846	1.2.1.7.13.8	CAMAC cable DAC (1)	SLAC	M&S	1	0 wks	\$0.00	\$200.00	\$0.00	\$200.00	\$12.00	\$31.80	\$243.80
		SLAC M&S Total		M&S	0	200	\$0.00	\$0.00	\$0.00	\$200.00	\$0.00	\$0.00	\$0.00
847	1.2.1.7.13.9	CAMAC cable SAM (2)	SLAC	B&H	1	0.02 wks	\$0.00	\$0.00	\$40.00	\$40.00	\$8.00	\$7.20	\$55.20
		SLACL PCD:Inst-Cabling-Elec Fab		B&H	0	0.02 wks	\$0.00	\$0.00	\$0.00	\$40.00	\$0.00	\$0.00	\$0.00
848	1.2.1.7.13.9	-	SLAC	M&S	1	0 wks	\$0.00	\$200.00	\$0.00	\$200.00	\$12.00	\$31.80	\$243.80
		SLAC M&S Total		M&S	0	200	\$0.00	\$0.00	\$0.00	\$200.00	\$0.00	\$0.00	\$0.00
849	1.2.1.7.13.10		SLAC	B&H		0.02 wks	\$0.00	\$0.00	\$40.00	\$40.00	\$8.00	\$7.20	\$55.20
- 10		SLACL PCD:Inst-Cabling-Elec Fab	32.10	B&H	0	0.02 wks	\$0.00	\$0.00	\$0.00	\$40.00	\$0.00	\$0.00	\$0.00
		SLAGE FOD.ITISE-GADILITY-ETEC FAD		₽ФП		U.UZ WKS	φυ.00	φυ.00	φυ.00	\$40.00	φυ.00	\$0.00	φυ. <i>0</i> 0

I CI	S	CD1	TEC

ID		Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
850	1.2.1.7.13.10	CAMAC cable PAU	SLAC	M&S	1	0 wks	\$0.00	\$200.00	\$0.00	\$200.00	\$12.00	\$31.80	\$243.80
		SLAC M&S Total		M&S	0	200	\$0.00	\$0.00	\$0.00	\$200.00	\$0.00	\$0.00	\$0.00
851	1.2.1.7.13.11	Cableplant Phase & Amp., BLM, Temp.	SLAC	M&S	4	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$530.00	\$1,590.00
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.00
852	1.2.1.7.14	Reserved			0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
853	1.2.1.7.14.1	Beam Stopper Controls	SLAC		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
854	1.2.1.8	PPS			0	63.21 wks	\$0.00	\$75,019.00	\$130,995.42	\$206,014.42	\$30,700.22	\$58,780.89	\$295,495.54
855	1.2.1.8.1	Injector PPS			0	39.21 wks	\$0.00	\$37,017.00	\$83,024.22	\$120,041.22	\$18,825.86	\$42,876.62	\$181,743.71
856	1.2.1.8.1.1	Injector PPS	SLAC		4	39.21 wks	\$0.00	\$37,017.00	\$83,024.22	\$120,041.22	\$18,825.86	\$42,876.62	\$181,743.71
857	1.2.1.8.1.1	Limit Switches (6)	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219.00
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.00
858	1.2.1.8.1.1	Door (1)	SLAC	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$265.00	\$1,325.00
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.00
859	1.2.1.8.1.1	Emergency Entry Key Box (1)	SLAC	M&S	1	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$180.00	\$477.00	\$3,657.00
		SLAC M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0.00
860	1.2.1.8.1.1	Annunciator Sign (1)	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219.00
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.00
861	1.2.1.8.1.1	Search Preset Box (1)	SLAC	M&S	1	0 wks	\$0.00	\$1.00	\$0.00	\$1.00	\$0.06	\$0.16	\$1.22
		SLAC M&S Total		M&S	0	1	\$0.00	\$0.00	\$0.00	\$1.00	\$0.00	\$0.00	\$0.00
862	1.2.1.8.1.1	Search Reset (1)	SLAC	M&S	1	0 wks	\$0.00	\$1.00	\$0.00	\$1.00	\$0.06	\$0.16	\$1.22
		SLAC M&S Total		M&S	0	1	\$0.00	\$0.00	\$0.00	\$1.00	\$0.00	\$0.00	\$0.00
863	1.2.1.8.1.1	PLC Controllers (2)	SLAC	M&S	1	0 wks	\$0.00	\$4,000.00	\$0.00	\$4,000.00	\$240.00	\$636.00	\$4,876.00
		SLAC M&S Total		M&S	0	4,000	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$0.00
864	1.2.1.8.1.1	Gate (1)	SLAC	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$530.00	\$2,650.00
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.00
865	1.2.1.8.1.1	Rask Beacon (1)	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219.00
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.00
866	1.2.1.8.1.1	Audio Annunciator (1)	SLAC	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$265.00	\$1,325.00
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.00
867	1.2.1.8.1.1	Audio Amplifier (1)	SLAC	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$265.00	\$1,325.00
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.00
868	1.2.1.8.1.1	Speakers (5)	SLAC	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$530.00	\$2,650.00
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.00
869	1.2.1.8.1.1	Audio Mixer (1)	SLAC	M&S	2	0 wks	\$0.00	\$1.00	\$0.00	\$1.00	\$0.06	\$0.27	\$1.33
		SLAC M&S Total		M&S	0	1	\$0.00	\$0.00	\$0.00	\$1.00	\$0.00	\$0.00	\$0.00

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ID 870	CWBS 1.2.1.8.1.1	Task Name EO Buttons (5)	OBS SLAC	PHASE M&S	Risk	Units 0 wks	PED (Direct) \$0.00	M&S (Direct) \$1.00	Labor (Direct) \$0.00	Direct Cost \$1.00	Overhead Cost \$0.06	Contingency Cost \$0.16	Total Cost \$1.22
	1.2.1.0.1.1		OLAO	M&S	'	O WING	\$0.00		\$0.00				
		SLAC M&S Total			0	1		\$0.00		\$1.00	\$0.00	\$0.00	\$0.00
871	1.2.1.8.1.1	EE Buttons (5)	SLAC	M&S	1	0 wks	\$0.00	\$1.00	\$0.00	\$1.00	\$0.06		\$1.22
		SLAC M&S Total		M&S	0	1	\$0.00	\$0.00	\$0.00	\$1.00	\$0.00	\$0.00	\$0.00
872	1.2.1.8.1.1	Y/M Lights	SLAC	M&S	1	0 wks	\$0.00	\$1.00	\$0.00	\$1.00	\$0.06	\$0.16	\$1.22
		SLAC M&S Total		M&S	0	1	\$0.00	\$0.00	\$0.00	\$1.00	\$0.00	\$0.00	\$0.00
873	1.2.1.8.1.1	Hazard Interface Chassis	SLAC	M&S	3	0 wks	\$0.00	\$1.00	\$0.00	\$1.00	\$0.06	\$0.37	\$1.43
		SLAC M&S Total		M&S	0	1	\$0.00	\$0.00	\$0.00	\$1.00	\$0.00	\$0.00	\$0.00
874	1.2.1.8.1.1	LASER Safety Interface Chassis Interface Chassis	SLAC	M&S	3	0 wks	\$0.00	\$5,000.00	\$0.00	\$5,000.00	\$300.00	\$1,855.00	\$7,155.00
		SLAC M&S Total		M&S	0	5,000	\$0.00	\$0.00	\$0.00	\$5,000.00	\$0.00	\$0.00	\$0.00
875	1.2.1.8.1.1	Control/Logic Panels (S20)	SLAC	M&S	3	0 wks	\$0.00	\$1.00	\$0.00	\$1.00	\$0.06		\$1.43
0/5	1.2.1.0.1.1	- ' '	SLAC			U WKS							
		SLAC M&S Total		M&S	0	1	\$0.00	\$0.00	\$0.00	\$1.00	\$0.00	\$0.00	\$0.00
876	1.2.1.8.1.1	Logic Array Package (S20)	SLAC	M&S	3	0 wks	\$0.00	\$1.00	\$0.00	\$1.00	\$0.06	\$0.37	\$1.43
		SLAC M&S Total		M&S	0	1	\$0.00	\$0.00	\$0.00	\$1.00	\$0.00	\$0.00	\$0.00
877	1.2.1.8.1.1	CAMAC Module, IDOM	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219.00
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.00
878	1.2.1.8.1.1	CAMAC Module, LDIM	SLAC	M&S	2	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$180.00	\$795.00	\$3,975.00
		SLAC M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0.00
879	1.2.1.8.1.1	CAMAC Module, SAM	SLAC	M&S	1	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$318.00	\$2,438.00
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.00
880	1.2.1.8.1.1	CAMAC cable, Panel to IDOM	SLAC	M&S		0 wks	\$0.00	\$1.00	\$0.00	\$1.00	\$0.06		\$1.22
000	1.2.1.0.1.1		SLAC		1	U WKS							
		SLAC M&S Total		M&S	0	1	\$0.00	\$0.00	\$0.00	\$1.00	\$0.00	\$0.00	\$0.00
881	1.2.1.8.1.1	CAMAC cable, Panel to LDIM	SLAC	M&S	1	0 wks	\$0.00	\$1.00	\$0.00	\$1.00	\$0.06	\$0.16	\$1.22
		SLAC M&S Total		M&S	0	1	\$0.00	\$0.00	\$0.00	\$1.00	\$0.00	\$0.00	\$0.00
882	1.2.1.8.1.1	CAMAC cable, Panel to LDIM	SLAC	M&S	1	0 wks	\$0.00	\$1.00	\$0.00	\$1.00	\$0.06	\$0.16	\$1.22
		SLAC M&S Total		M&S	0	1	\$0.00	\$0.00	\$0.00	\$1.00	\$0.00	\$0.00	\$0.00
883	1.2.1.8.1.1	CAMAC cable, Panel to SAM (BSOIC R/O)	SLAC	M&S	1	0 wks	\$0.00	\$1.00	\$0.00	\$1.00	\$0.06	\$0.16	\$1.22
		SLAC M&S Total		M&S	0	1	\$0.00	\$0.00	\$0.00	\$1.00	\$0.00	\$0.00	\$0.00
884	1.2.1.8.1.1	Cable, 36 PR Arm, Logic Panel to Control Console (1)	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219.00
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.00
885	1.2.1.8.1.1		SLAC	M&S			\$0.00	\$1.00	\$0.00	\$1,000.00	\$0.00		\$1.22
000	1.2.7.8.7.1	Cable, Multi-conductor, PA System to X-connects (1)	SLAC		1	0 wks							
		SLAC M&S Total		M&S	0	1	\$0.00	\$0.00	\$0.00	\$1.00	\$0.00	\$0.00	\$0.00
886	1.2.1.8.1.1	12 pr Cable (1000ft)	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219.00
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.00
887	1.2.1.8.1.1	50 pr cable (250ft)	SLAC	M&S	1	0 wks	\$0.00	\$1.00	\$0.00	\$1.00	\$0.06	\$0.16	\$1.22

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ID	CWBS	Task Name SLAC M&S Total	OBS	PHASE M&S	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
						7	\$0.00	\$0.00	\$0.00	\$1.00	\$0.00	\$0.00	\$0.
88	1.2.1.8.1.1		SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.
39	1.2.1.8.1.1	Cable,TBD Hazards Intf.	SLAC	M&S	1	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$318.00	\$2,438
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0
90	1.2.1.8.1.1	Cable,TBD LASER Safety Intf.	SLAC	M&S	1	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$318.00	\$2,438
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0
91	1.2.1.8.1.1	CAMAC cable, Panel to LDIM	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,21
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0
92	1.2.1.8.1.1	CAMAC cable, Panel to SAM (BSOIC R/O)	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0
13	1.2.1.8.1.1	Cable, 36 PR Arm, Logic Panel to Control Console (1)	SLAC	M&S	1	0 wks	\$0.00	\$1.00	\$0.00	\$1.00	\$0.06	\$0.16	\$
		SLAC M&S Total		M&S	0	1	\$0.00	\$0.00	\$0.00	\$1.00	\$0.00	\$0.00	\$0
4	1.2.1.8.1.1	Cable, Multi-conductor, PA System to X-connects (1)	SLAC	M&S	1	0 wks	\$0.00	\$1.00	\$0.00	\$1.00	\$0.06	\$0.16	\$
		SLAC M&S Total		M&S	0	1	\$0.00	\$0.00	\$0.00	\$1.00	\$0.00	\$0.00	\$
5	1.2.1.8.1.1		CLAC	ED&I		9 wks	\$0.00	\$0.00	\$27,000.00	\$27,000.00	\$5,400.00		\$43,74
5	1.2.1.8.1.1	,	SLAC		3								
		S LAC Electrical Engineer		ED&I	0	9 wks	\$0.00	\$0.00	\$0.00	\$27,000.00	\$0.00	\$0.00	\$
96	1.2.1.8.1.1	, and the second	SLAC	ED&I	3	12.37 wks	\$0.00	\$0.00	\$24,740.00	\$24,740.00	\$4,948.00	\$10,390.80	\$40,07
		SLAC Controls: Coordinator Assoc.		ED&I	0	12.37 wks	\$0.00	\$0.00	\$0.00	\$24,740.00	\$0.00	\$0.00	\$
97	1.2.1.8.1.1	PPS Systems Checkout & Certification- Technician	SLAC	B&H	3	17.84 wks	\$0.00	\$0.00	\$31,284.22	\$31,284.22	\$6,256.84	\$13,139.37	\$50,68
		SLAC Controls: Technician		B&H	0	17.84 wks	\$0.00	\$0.00	\$0.00	\$31,284.22	\$0.00	\$0.00	\$
8	1.2.1.8.2	Injector BCS			0	0 wks	\$0.00	\$14,002.00	\$0.00	\$14,002.00	\$840.12	\$2,650.32	\$17,49
9	1.2.1.8.2.1	Machine Protection PIC Module (2)	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,21
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$
00	1.2.1.8.2.1	Cable, Coax, PIC Module to PIC Detector (6)	SLAC	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$265.00	\$1,32
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$
)1	1.2.1.8.2.1	Cable, Coax, HV P.S. to PIC Detector (6)	SLAC	M&S	1	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$180.00	\$477.00	\$3,65
		SLAC M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$
)2	1.2.1.8.2.1	Cable,1553, PIC Module Chain to VME A.P. Crate	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,21
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$
3	1.2.1.8.2.1		SLAC	M&S	1	0 wks	\$0.00	\$1.00	\$0.00	\$1.00	\$0.06	\$0.16	9
_	1.2.1.0.2.1	SLAC M&S Total	SLAG	M&S	0	O WKS	\$0.00	\$0.00	\$0.00	\$1.00	\$0.00	\$0.10	\$
	121221		01.40			7							
)4	1.2.1.8.2.1	Cable,4/C, HV P.S. to X-connects (HV Enable)	SLAC	M&S	1	0 wks	\$0.00	\$1.00	\$0.00	\$1.00	\$0.06	\$0.16	\$
		SLAC M&S Total		M&S	0	1	\$0.00	\$0.00	\$0.00	\$1.00	\$0.00	\$0.00	\$
)5	1.2.1.8.2.1	Interrack X-connects	SLAC	M&S	1	0 wks	\$0.00	\$4,000.00	\$0.00	\$4,000.00	\$240.00	\$636.00	\$4,87

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ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		SLAC M&S Total		M&S	0	4,000	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$0.00
906	1.2.1.8.2.1	Summary & Interlock Chassis	SLAC	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$530.00	\$2,650.0
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.00
907	1.2.1.8.2.1	CAMAC Module, LDIM	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219.0
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.00
908	1.2.1.8.2.1	Cable, LDIM to X-connects	SLAC	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$265.00	\$1,325.0
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.00
909	1.2.1.8.3	Beam Stopper			0	12 wks	\$0.00	\$12,000.00	\$23,985.60	\$35,985.60	\$5,517.12	\$13,253.95	\$54,756.67
910	1.2.1.8.3.1	Materials	SLAC	M&S	2	0 wks	\$0.00	\$12,000.00	\$0.00	\$12,000.00	\$720.00	\$3,180.00	\$15,900.0
		SLAC M&S Total		M&S	0	12,000	\$0.00	\$0.00	\$0.00	\$12,000.00	\$0.00	\$0.00	\$0.00
911	1.2.1.8.3.2	Assembly/Mfg	SLAC	B&H	3	12 wks	\$0.00	\$0.00	\$23,985.60	\$23,985.60	\$4,797.12	\$10,073.95	\$38,856.6
		SLAC Mech. Fab: Assembly Tech		B&H	0	12 wks	\$0.00	\$0.00	\$0.00	\$23,985.60	\$0.00	\$0.00	\$0.00
912	1.2.1.8.4	Beam Spectrometer			0	12 wks	\$0.00	\$12,000.00	\$23,985.60	\$35,985.60	\$5,517.12	\$0.00	\$41,502.72
913	1.2.1.8.4.1	Materials	SLAC	M&S	0	0 wks	\$0.00	\$12,000.00	\$0.00	\$12,000.00	\$720.00	\$0.00	\$12,720.00
913	1.2.1.6.4.1		SLAC										
		SLAC M&S Total		M&S	0	12,000	\$0.00	\$0.00	\$0.00	\$12,000.00	\$0.00	\$0.00	\$0.00
914	1.2.1.8.4.2		SLAC	B&H	0	12 wks	\$0.00	\$0.00	\$23,985.60	\$23,985.60	\$4,797.12	\$0.00	\$28,782.7
		SLAC Mech. Fab: Assembly Tech		B&H	0	12 wks	\$0.00	\$0.00	\$0.00	\$23,985.60	\$0.00	\$0.00	\$0.00
915	1.2.1.9	RF			0	399 wks	\$0.00	\$795,000.00	\$1,047,889.20	\$1,842,889.20	\$257,277.84	\$578,204.82	\$2,678,371.86
916	1.2.1.9.1	Gun			0	110 wks	\$0.00	\$150,000.00	\$294,934.00	\$444,934.00	\$67,986.80	\$185,290.20	\$698,211.00
917	1.2.1.9.1.1	Gun Materials	SLAC	M&S	3	0 wks	\$0.00	\$30,000.00	\$0.00	\$30,000.00	E4 000 00	844 488 88	\$42,930.0
			OLINO	IVIAS	"	O WIG	Ψ0.00	****	40.00	ψου,ουσ.σσ	\$1,800.00	\$11,130.00	* :=,
		SLAC M&S Total	CENO	M&S	0	30,000	\$0.00	\$0.00	\$0.00	\$30,000.00	\$1,800.00	\$11,130.00	\$0.00
918	1.2.1.9.1.2		SLAC										
918	1.2.1.9.1.2			M&S	0	30,000	\$0.00	\$0.00	\$0.00	\$30,000.00	\$0.00	\$0.00	\$0.00
	1.2.1.9.1.2	Gun Fabrication SLAC M&S Total		M&S M&S	0	30,000 0 wks	\$0.00	\$0.00	\$0.00	\$30,000.00	\$0.00 \$1,800.00	\$0.00 \$11,130.00	\$0.00 \$42,930.00 \$0.00
		Gun Fabrication SLAC M&S Total	SLAC	M&S M&S M&S	3	30,000 0 wks 30,000	\$0.00 \$0.00 \$0.00	\$0.00	\$0.00 \$0.00	\$30,000.00 \$30,000.00 \$30,000.00	\$0.00 \$1,800.00 \$0.00	\$0.00 \$11,130.00 \$0.00	\$0.00
919		Gun Fabrication SLAC M&S Total Gun Assembly SLAC Mech. Fab: Assembly Tech	SLAC	M&S M&S M&S B&H	0 3 0 4	30,000 0 wks 30,000 25 wks	\$0.00 \$0.00 \$0.00	\$0.00 \$30,000.00 \$0.00	\$0.00 \$0.00 \$0.00 \$49,970.00	\$30,000.00 \$30,000.00 \$30,000.00 \$49,970.00	\$0.00 \$1,800.00 \$0.00 \$9,994.00	\$0.00 \$11,130.00 \$0.00 \$29,982.00	\$0.00 \$42,930.00 \$0.00 \$89,946.00
919	1.2.1.9.1.3	Gun Fabrication SLAC M&S Total Gun Assembly SLAC Mech. Fab: Assembly Tech	SLAC	M&S M&S M&S B&H	0 3 0 4 0	30,000 0 wks 30,000 25 wks	\$0.00 \$0.00 \$0.00 \$0.00	\$0.00 \$30,000.00 \$0.00 \$0.00	\$0.00 \$0.00 \$0.00 \$49,970.00 \$0.00	\$30,000.00 \$30,000.00 \$30,000.00 \$49,970.00	\$0.00 \$1,800.00 \$0.00 \$9,994.00	\$0.00 \$11,130.00 \$0.00 \$29,982.00 \$0.00	\$0.00 \$42,930.0 \$0.00 \$89,946.0 \$0.00 \$151,200.0
919	1.2.1.9.1.3	Gun Fabrication SLAC M&S Total Gun Assembly SLAC Mech. Fab: Assembly Tech Proc., Man. & Assembly Supervision SLAC AD: Mech/Vacuum Engineer	SLAC	M&S M&S M&S B&H B&H ED&I	0 3 0 4 0 4	30,000 0 wks 30,000 25 wks 25 wks	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$0.00 \$30,000.00 \$0.00 \$0.00	\$0.00 \$0.00 \$0.00 \$49,970.00 \$0.00 \$84,000.00	\$30,000.00 \$30,000.00 \$30,000.00 \$49,970.00 \$49,970.00	\$0.00 \$1,800.00 \$0.00 \$9,994.00 \$0.00	\$0.00 \$11,130.00 \$0.00 \$29,982.00 \$0.00 \$50,400.00	\$0.00 \$42,930.0 \$0.00 \$89,946.0 \$151,200.0 \$0.00
919	1.2.1.9.1.3	Gun Fabrication SLAC M&S Total Gun Assembly SLAC Mech. Fab: Assembly Tech Proc., Man. & Assembly Supervision SLAC AD: Mech/Vacuum Engineer Gun Tests in Lab	SLAC SLAC	M&S M&S M&S B&H B&H ED&I	0 3 0 4 0 4 0 0	30,000 0 wks 30,000 25 wks 25 wks 25 wks	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$0.00 \$30,000.00 \$0.00 \$0.00 \$0.00	\$0.00 \$0.00 \$0.00 \$49,970.00 \$0.00 \$84,000.00	\$30,000.00 \$30,000.00 \$30,000.00 \$49,970.00 \$49,970.00 \$84,000.00 \$84,000.00	\$0.00 \$1,800.00 \$0.00 \$9,994.00 \$0.00 \$16,800.00	\$0.00 \$11,130.00 \$0.00 \$29,982.00 \$0.00 \$50,400.00	\$0.00 \$42,930.0 \$0.00 \$89,946.0 \$151,200.0 \$59,964.0
919	1.2.1.9.1.3	Gun Fabrication SLAC M&S Total Gun Assembly SLAC Mech. Fab: Assembly Tech Proc., Man. & Assembly Supervision SLAC AD: Mech/Vacuum Engineer Gun Tests in Lab SLAC Mech. Fab: Assembly Tech	SLAC SLAC SLAC	M&S M&S M&S B&H B&H ED&I B&H B&H	0 3 0 4 0 0 0 0 0 0	30,000 0 wks 30,000 25 wks 25 wks 25 wks 25 wks 25 wks	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$0.00 \$30,000.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$0.00 \$0.00 \$0.00 \$49,970.00 \$84,000.00 \$0.00 \$49,970.00	\$30,000.00 \$30,000.00 \$30,000.00 \$49,970.00 \$84,000.00 \$84,000.00 \$49,970.00	\$0.00 \$1,800.00 \$9,994.00 \$0.00 \$16,800.00 \$9,994.00	\$0.00 \$11,130.00 \$0.00 \$29,982.00 \$0.00 \$50,400.00 \$0.00 \$0.00	\$0.00 \$42,930.0 \$0.00 \$89,946.0 \$0.00 \$151,200.0 \$59,964.0
919	1.2.1.9.1.3	Gun Fabrication SLAC M&S Total Gun Assembly SLAC Mech. Fab: Assembly Tech Proc., Man. & Assembly Supervision SLAC AD: Mech/Vacuum Engineer Gun Tests in Lab SLAC Mech. Fab: Assembly Tech Gun Tests in Lab	SLAC SLAC	M&S M&S M&S B&H B&H ED&I B&H ED&I	0 3 0 4 0 0 0 0 0 4	30,000 0 wks 30,000 25 wks	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$0.00 \$30,000.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$0.00 \$0.00 \$0.00 \$49,970.00 \$84,000.00 \$0.00 \$49,970.00 \$0.00 \$85,000.00	\$30,000.00 \$30,000.00 \$30,000.00 \$49,970.00 \$84,000.00 \$84,000.00 \$49,970.00 \$49,970.00	\$0.00 \$1,800.00 \$9,994.00 \$16,800.00 \$0.00 \$9,994.00 \$0.00 \$17,000.00	\$0.00 \$11,130.00 \$0.00 \$29,982.00 \$50,400.00 \$50,400.00 \$0.00 \$51,000.00	\$0.00 \$42,930.0 \$0.00 \$89,946.0 \$151,200.0 \$0.00 \$59,964.0 \$153,000.0
919 920 921 922	1.2.1.9.1.3 1.2.1.9.1.4 1.2.1.9.1.5	Gun Fabrication SLAC M&S Total Gun Assembly SLAC Mech. Fab: Assembly Tech Proc., Man. & Assembly Supervision SLAC AD: Mech/Vacuum Engineer Gun Tests in Lab SLAC Mech. Fab: Assembly Tech Gun Tests in Lab SLAC Physicist -Scientist	SLAC SLAC SLAC SLAC	M&S M&S M&S B&H B&H ED&I ED&I B&H ED&I	0 3 0 4 0 4 0 0	30,000 0 wks 30,000 25 wks	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$0.00 \$30,000.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$0.00 \$0.00 \$0.00 \$49,970.00 \$84,000.00 \$0.00 \$49,970.00 \$85,000.00	\$30,000.00 \$30,000.00 \$30,000.00 \$49,970.00 \$49,970.00 \$84,000.00 \$49,970.00 \$85,000.00	\$0.00 \$1,800.00 \$9,994.00 \$0.00 \$16,800.00 \$9,994.00 \$0.00 \$17,000.00	\$0.00 \$11,130.00 \$0.00 \$29,982.00 \$0.00 \$50,400.00 \$0.00 \$51,000.00	\$0.0 \$42,930.0 \$0.0 \$89,946.0 \$151,200.0 \$59,964.0 \$153,000.0
919 920 921 922	1.2.1.9.1.3	Gun Fabrication SLAC M&S Total Gun Assembly SLAC Mech. Fab: Assembly Tech Proc., Man. & Assembly Supervision SLAC AD: Mech/Vacuum Engineer Gun Tests in Lab SLAC Mech. Fab: Assembly Tech Gun Tests in Lab SLAC Physicist -Scientist High Power Waveguides	SLAC SLAC SLAC	M&S M&S M&S B&H B&H ED&I B&H ED&I B&H ED&I B&H ED&I B&H	0 3 0 4 0 4 0 0	30,000 0 wks 30,000 25 wks 5 wks	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$0.00 \$30,000.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$0.00 \$0.00 \$49,970.00 \$84,000.00 \$849,970.00 \$49,970.00 \$5.00 \$5.00 \$5.00 \$9,994.00	\$30,000.00 \$30,000.00 \$30,000.00 \$49,970.00 \$84,000.00 \$49,970.00 \$49,970.00 \$85,000.00 \$9,994.00	\$0.00 \$1,800.00 \$9,994.00 \$0.00 \$16,800.00 \$0.00 \$9,994.00 \$17,000.00 \$0.00 \$1,998.80	\$0.00 \$11,130.00 \$0.00 \$29,982.00 \$50,400.00 \$0.00 \$0.00 \$51,000.00 \$2,998.20	\$0.00 \$42,930.0 \$0.00 \$89,946.0 \$151,200.0 \$59,964.0 \$153,000.0 \$0.00 \$14,991.0
919 920 921 922	1.2.1.9.1.3 1.2.1.9.1.4 1.2.1.9.1.5 1.2.1.9.1.6	Gun Fabrication SLAC M&S Total Gun Assembly SLAC Mech. Fab: Assembly Tech Proc., Man. & Assembly Supervision SLAC AD: Mech/Vacuum Engineer Gun Tests in Lab SLAC Mech. Fab: Assembly Tech Gun Tests in Lab SLAC Physicist -Scientist High Power Waveguides SLAC Mech. Fab: Assembly Tech	SLAC SLAC SLAC SLAC	M&S M&S M&S B&H B&H ED&I B&H ED&I B&H B&H ED&I B&H B&H ED&I		30,000 0 wks 30,000 25 wks 25 wks 25 wks 25 wks 25 wks 25 wks 5 wks 5 wks	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$0.00 \$30,000.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$0.00 \$0.00 \$0.00 \$49,970.00 \$84,000.00 \$0.00 \$49,970.00 \$85,000.00 \$9,994.00	\$30,000.00 \$30,000.00 \$30,000.00 \$49,970.00 \$84,000.00 \$84,000.00 \$49,970.00 \$49,970.00 \$85,000.00 \$9,994.00	\$0.00 \$1,800.00 \$9,994.00 \$16,800.00 \$0.00 \$9,994.00 \$0.00 \$17,000.00 \$1,998.80	\$0.00 \$11,130.00 \$0.00 \$29,982.00 \$50,400.00 \$50,400.00 \$0.00 \$51,000.00 \$2,998.20 \$0.00	\$0.00 \$42,930.00 \$89,946.00 \$89,946.00 \$151,200.00 \$50,00 \$559,964.00 \$0.00 \$14,991.00 \$0.00
918 919 920 921 922 923	1.2.1.9.1.3 1.2.1.9.1.4 1.2.1.9.1.5	Gun Fabrication SLAC M&S Total Gun Assembly SLAC Mech. Fab: Assembly Tech Proc., Man. & Assembly Supervision SLAC AD: Mech/Vacuum Engineer Gun Tests in Lab SLAC Mech. Fab: Assembly Tech Gun Tests in Lab SLAC Physicist -Scientist High Power Waveguides SLAC Mech. Fab: Assembly Tech	SLAC SLAC SLAC SLAC	M&S M&S M&S B&H B&H ED&I B&H ED&I B&H ED&I B&H ED&I B&H	0 3 0 4 0 4 0 0	30,000 0 wks 30,000 25 wks 5 wks	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$0.00 \$30,000.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$0.00 \$0.00 \$49,970.00 \$84,000.00 \$849,970.00 \$49,970.00 \$5.00 \$5.00 \$5.00 \$9,994.00	\$30,000.00 \$30,000.00 \$30,000.00 \$49,970.00 \$84,000.00 \$49,970.00 \$49,970.00 \$85,000.00 \$9,994.00	\$0.00 \$1,800.00 \$9,994.00 \$0.00 \$16,800.00 \$0.00 \$9,994.00 \$17,000.00 \$0.00 \$1,998.80	\$0.00 \$11,130.00 \$0.00 \$29,982.00 \$50,400.00 \$0.00 \$0.00 \$51,000.00 \$2,998.20	\$0.00 \$42,930.00 \$0.00 \$89,946.00

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ID		Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
925	1.2.1.9.1.7	Couplers	SLAC	B&H	2	3 wks	\$0.00	\$0.00	\$9,600.00	\$9,600.00	\$1,920.00	\$2,880.00	\$14,400.
		SLAC Mech. Fab: Machine Shop		B&H	0	3 wks	\$0.00	\$0.00	\$0.00	\$9,600.00	\$0.00	\$0.00	\$0.
26	1.2.1.9.1.7	Couplers	SLAC	M&S	2	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$180.00	\$795.00	\$3,975.
\dashv		SLAC M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0.
27	1.2.1.9.1.8	Loads	SLAC	B&H	2	2 wks	\$0.00	\$0.00	\$6,400.00	\$6,400.00	\$1,280.00	\$1,920.00	\$9,600
\dashv		SLAC Mech. Fab: Machine Shop		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$6,400.00	\$0.00	\$0.00	\$0
28	1.2.1.9.1.8	Loads	SLAC	M&S	2	0 wks	\$0.00	\$10,000.00	\$0.00	\$10,000.00	\$600.00	\$2,650.00	\$13,250
		SLAC M&S Total		M&S	0	10,000	\$0.00	\$0.00	\$0.00	\$10,000.00	\$0.00	\$0.00	\$0
29	1.2.1.9.2	Accelerator Structures			0	37 wks	\$0.00	\$185,000.00	\$87,756.40	\$272,756.40	\$28,651.28	\$75,351.92	\$376,759
30	1.2.1.9.2.1	Structure Refurbish	SLAC	B&H	2	13 wks	\$0.00	\$0.00	\$25,984.40	\$25,984.40	\$5,196.88	\$7,795.32	\$38,976
	1.2.1.0.2.1	SLAC Mech. Fab: Assembly Tech	0210	B&H	0	13 wks	\$0.00	\$0.00	\$0.00	\$25,984.40	\$0.00	\$0.00	\$0
		•		M&S	2	0 wks							
31	1.2.1.9.2.1	Structure Refurbish	SLAC		-		\$0.00	\$5,000.00	\$0.00	\$5,000.00	\$300.00		\$6,625
		SLAC M&S Total		M&S	0	5,000	\$0.00	\$0.00	\$0.00	\$5,000.00	\$0.00	\$0.00	\$0
32	1.2.1.9.2.2	Structure Testing	SLAC	ED&I	2	2 wks	\$0.00	\$0.00	\$5,786.40	\$5,786.40	\$1,157.28	\$1,735.92	\$8,679
		SLAC Klystron: Engineer		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$5,786.40	\$0.00	\$0.00	\$0
33	1.2.1.9.2.3	Proc., Man. & Assembly Supervision	SLAC	B&H	2	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$
		SLAC Mech. Fab: Assembly Tech		B&H	0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
34	1.2.1.9.2.3	Proc., Man. & Assembly Supervision	SLAC	ED&I	2	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
\dashv		SLAC AD: Mech/Vacuum Engineer		ED&I	0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
35	1.2.1.9.2.4	High Power Waveguide	SLAC	B&H	2	10 wks	\$0.00	\$0.00	\$19,988.00	\$19,988.00	\$3,997.60	\$5,996.40	\$29,982
\dashv		SLAC Mech. Fab: Assembly Tech		B&H	0	10 wks	\$0.00	\$0.00	\$0.00	\$19,988.00	\$0.00	\$0.00	\$0
36	1.2.1.9.2.4	High Power Waveguide	SLAC	M&S	2	0 wks	\$0.00	\$154,000.00	\$0.00	\$154,000.00	\$9,240.00	\$40,810.00	\$204,05
_		SLAC M&S Total		M&S	0	154,000	\$0.00	\$0.00	\$0.00	\$154,000.00	\$0.00	\$0.00	\$0
37	1.2.1.9.2.5		SLAC	B&H	2	6 wks	\$0.00	\$0.00	\$19,200.00	\$19,200.00	\$3,840.00		\$28,80
"	1.2.1.5.2.0	·	OD/10	B&H	-		\$0.00	\$0.00	\$0.00		\$0.00		
		SLAC Mech. Fab: Machine Shop			0	6 wks				\$19,200.00			\$0
88	1.2.1.9.2.5		SLAC	M&S	2	0 wks	\$0.00	\$6,000.00	\$0.00	\$6,000.00	\$360.00		\$7,95
		SLAC M&S Total		M&S	0	6,000	\$0.00	\$0.00	\$0.00	\$6,000.00	\$0.00	\$0.00	\$6
9	1.2.1.9.2.6	Loads	SLAC	B&H	2	4 wks	\$0.00	\$0.00	\$12,800.00	\$12,800.00	\$2,560.00	\$3,840.00	\$19,20
		SLAC Mech. Fab: Machine Shop		B&H	0	4 wks	\$0.00	\$0.00	\$0.00	\$12,800.00	\$0.00	\$0.00	\$
0	1.2.1.9.2.6	Loads	SLAC	M&S	2	0 wks	\$0.00	\$20,000.00	\$0.00	\$20,000.00	\$1,200.00	\$5,300.00	\$26,50
-		SLAC M&S Total		M&S	0	20,000	\$0.00	\$0.00	\$0.00	\$20,000.00	\$0.00	\$0.00	\$
1	1.2.1.9.2.7	Refurbish Modulator	SLAC		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$
42	1.2.1.9.2.8	Solid State Subbooster	SLAC		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$
43	1.2.1.9.2.9	IPA Mods	SLAC		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$
14	1.2.1.9.2.10	Controls Interface	SLAC		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		\$

ID		Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
945	1.2.1.9.2.11	Installation	SLAC	B&H	2	2 wks	\$0.00	\$0.00	\$3,997.60	\$3,997.60	\$799.52	\$1,199.28	\$5,996.4
		SLAC Mech. Fab: Assembly Tech		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$3,997.60	\$0.00	\$0.00	\$0.0
46	1.2.1.9.3	Transverse RF Cavity			0	20 wks	\$0.00	\$93,000.00	\$49,278.80	\$142,278.80	\$15,435.76	\$39,428.64	\$197,143.2
47	1.2.1.9.3.1	Structure Refurbish	SLAC	B&H	2	7 wks	\$0.00	\$0.00	\$13,991.60	\$13,991.60	\$2,798.32	\$4,197.48	\$20,987.
\dashv		SLAC Mech. Fab: Assembly Tech		B&H	0	7 wks	\$0.00	\$0.00	\$0.00	\$13,991.60	\$0.00	\$0.00	\$0.
148	1.2.1.9.3.1	Structure Refurbish	SLAC	M&S	2	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$180.00	\$795.00	\$3,975
\dashv		SLAC M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0.
49	1.2.1.9.3.2	Structure Testing	SLAC	ED&I	2	1 wk	\$0.00	\$0.00	\$2,893.20	\$2,893.20	\$578.64	\$867.96	\$4,339
\dashv		SLAC Klystron: Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,893.20	\$0.00	\$0.00	\$0.
50	1.2.1.9.3.3	Proc., Man. & Assembly Supervision	SLAC	B&H	2	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
-		SLAC Mech. Fab: Assembly Tech		B&H	0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
51	1.2.1.9.3.3	Proc., Man. & Assembly Supervision	SLAC	ED&I	2	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
\dashv		SLAC AD: Mech/Vacuum Engineer		ED&I	0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
52	1.2.1.9.3.4	High Power Waveguide	SLAC	B&H	2	5 wks	\$0.00	\$0.00	\$9.994.00	\$9,994.00	\$1,998.80	\$2,998.20	\$14,991
		SLAC Mech. Fab: Assembly Tech		B&H	0	5 wks	\$0.00	\$0.00	\$0.00	\$9,994.00	\$0.00	\$0.00	\$0
53	1.2.1.9.3.4	High Power Waveguide	SLAC	M&S	2	0 wks	\$0.00	\$77,000.00	\$0.00	\$77,000.00	\$4,620.00	\$20,405.00	\$102,025
33	1.2.1.9.3.4		SLAC	M&S									
		SLAC M&S Total			0	77,000	\$0.00	\$0.00	\$0.00	\$77,000.00	\$0.00	\$0.00	\$0
54	1.2.1.9.3.5	Couplers	SLAC	B&H	2	3 wks	\$0.00	\$0.00	\$9,600.00	\$9,600.00	\$1,920.00	\$2,880.00	\$14,400
		SLAC Mech. Fab: Machine Shop		B&H	0	3 wks	\$0.00	\$0.00	\$0.00	\$9,600.00	\$0.00	\$0.00	\$0
55	1.2.1.9.3.5	Couplers	SLAC	M&S	2	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$180.00	\$795.00	\$3,975
		SLAC M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0
56	1.2.1.9.3.6	Loads	SLAC	B&H	2	4 wks	\$0.00	\$0.00	\$12,800.00	\$12,800.00	\$2,560.00	\$3,840.00	\$19,200
\neg		SLAC Mech. Fab: Machine Shop		B&H	0	4 wks	\$0.00	\$0.00	\$0.00	\$12,800.00	\$0.00	\$0.00	\$0
57	1.2.1.9.3.6	Loads	SLAC	M&S	2	0 wks	\$0.00	\$10,000.00	\$0.00	\$10,000.00	\$600.00	\$2,650.00	\$13,250
\dashv		SLAC M&S Total		M&S	0	10,000	\$0.00	\$0.00	\$0.00	\$10,000.00	\$0.00	\$0.00	\$0
58	1.2.1.9.3.7	Refurbish Modulator	SLAC		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
59	1.2.1.9.3.8	Solid State Subbooster	SLAC		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
60	1.2.1.9.3.9	IPA Mods	SLAC		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
61	1.2.1.9.3.10	Controls Interface	SLAC		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
62	1.2.1.9.4	RF Distribution System			0	232 wks	\$0.00	\$367,000.00	\$615,920.00	\$982,920.00	\$145,204.00	\$278,134.06	\$1,406,258
63	1.2.1.9.4.1	Master Ocillator	SLAC		1	2 wks	\$0.00	\$55,000.00	\$5,786.40	\$60,786.40	\$4,457.28	\$9,786.55	\$75,030
54	1.2.1.9.4.1	Master Oscillator [3]	SLAC	M&S	1	0 wks	\$0.00	\$55,000.00	\$0.00	\$55,000.00	\$3,300.00	\$8,745.00	\$67,045
4		SLAC M&S Total		M&S	0	55,000	\$0.00	\$0.00	\$0.00	\$55,000.00	\$0.00	\$0.00	\$0
65	1.2.1.9.4.1	Testing	SLAC	ED&I	1	2 wks	\$0.00	\$0.00	\$5,786.40	\$5,786.40	\$1,157.28	\$1,041.55	\$7,985
00	1.2.1.5.4.1	SLAC Klystron: Engineer	SLAC	ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$5,786.40	\$0.00	\$0.00	\$7,980

ID 966	CWBS 1.2.1.9.4.2	Task Name LCLS Oscillator	OBS SLAC	PHASE	Risk	Units 6 wks	PED (Direct)	M&S (Direct) \$30,000.00	Labor (Direct) \$10,646.40	Direct Cost \$40,646.40	Overhead Cost \$3,929.28	Contingency Cost \$7,963.92	Total Cost \$52,539.0
66	1.2.1.9.4.2	LCLS Oscillator	SLAC		1	6 WKS	\$0.00	\$30,000.00	\$10,646.40	\$40,646.40	\$3,929.28	\$7,963.92	\$52,539.0
67	1.2.1.9.4.2	LCLS Master Osc. [3]	SLAC	M&S	1	0 wks	\$0.00	\$30,000.00	\$0.00	\$30,000.00	\$1,800.00	\$4,770.00	\$36,570.
		SLAC M&S Total		M&S	0	30,000	\$0.00	\$0.00	\$0.00	\$30,000.00	\$0.00	\$0.00	\$0.
68	1.2.1.9.4.2	Integration / Testing	SLAC	B&H	2	6 wks	\$0.00	\$0.00	\$10,646.40	\$10,646.40	\$2,129.28	\$3,193.92	\$15,969.
		SLAC Klystron: Technician		B&H	0	6 wks	\$0.00	\$0.00	\$0.00	\$10,646.40	\$0.00	\$0.00	\$0.
69	1.2.1.9.4.3	Sector 0 & MDL Mods	SLAC		1	17 wks	\$0.00	\$23,000.00	\$32,302.40	\$55,302.40	\$7,840.48	\$17,359.11	\$80,501.
70	1.2.1.9.4.3	SLD Countdown Chassis	SLAC	B&H	2	4 wks	\$0.00	\$0.00	\$7,097.60	\$7,097.60	\$1,419.52	\$2,129.28	\$10,646
		SLAC Klystron: Technician		B&H	0	4 wks	\$0.00	\$0.00	\$0.00	\$7,097.60	\$0.00	\$0.00	\$0
71	1.2.1.9.4.3	SLD Countdown Chassis	SLAC	M&S	2	0 wks	\$0.00	\$20,000.00	\$0.00	\$20,000.00	\$1,200.00	\$5,300.00	\$26,500
		SLAC M&S Total		M&S	0	20,000	\$0.00	\$0.00	\$0.00	\$20,000.00	\$0.00	\$0.00	\$0
72	1.2.1.9.4.3	MTG Modifications Test	SLAC	ED&I	2	2 wks	\$0.00	\$0.00	\$5,894.40	\$5,894.40	\$1,178.88	\$1,768.32	\$8,841
\dashv		SLAC Controls: Engineer		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$5,894.40	\$0.00	\$0.00	\$0
73	1.2.1.9.4.3	Sector 20 MDL Mods	SLAC	B&H	1	1 wk	\$0.00	\$0.00	\$1,774.40	\$1,774.40	\$354.88	\$319.39	\$2,448
\dashv		SLAC Klystron: Technician		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$1,774.40	\$0.00	\$0.00	\$0
74	1.2.1.9.4.3	Sector 20 MDL Mods	SLAC	M&S	1	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$180.00	\$477.00	\$3,657
\dashv		SLAC M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0
75	1.2.1.9.4.3	System Tests	SLAC	B&H	3	10 wks	\$0.00	\$0.00	\$17,536.00	\$17,536.00	\$3,507.20	\$7,365.12	\$28,40
_		SLAC Controls: Technician		B&H	0	10 wks	\$0.00	\$0.00	\$0.00	\$17,536.00	\$0.00		\$0
76	1.2.1.9.4.4	RF Distribution L0, L1	SLAC		2	10 wks	\$0.00	\$43,000.00	\$19,097.60	\$62,097.60	\$6,399.52		\$80,683
77	1.2.1.9.4.4	S-Band RF Cables 31	SLAC	B&H	-	4 wks	\$0.00	\$0.00	\$8,000.00	\$8,000.00	\$1,600.00		\$11,040
	1.2.1.9.4.4	SLACL PCD:Inst-Cabling-Elec Fab	SLAC	B&H	0	4 wks	\$0.00	\$0.00	\$0.00	\$8,000.00	\$0.00		\$11,040
70					0								
78	1.2.1.9.4.4	S-Band RF Cables 31	SLAC	M&S	1	0 wks	\$0.00	\$31,000.00	\$0.00	\$31,000.00	\$1,860.00		\$37,789
		SLAC M&S Total		M&S	0	31,000	\$0.00	\$0.00	\$0.00	\$31,000.00	\$0.00	\$0.00	\$0
79	1.2.1.9.4.4	Dist. Amp Chassis	SLAC	B&H	2	4 wks	\$0.00	\$0.00	\$7,097.60	\$7,097.60	\$1,419.52	\$2,129.28	\$10,64
		SLAC Klystron: Technician		B&H	0	4 wks	\$0.00	\$0.00	\$0.00	\$7,097.60	\$0.00	\$0.00	\$0
30	1.2.1.9.4.4	Dist. Amp Chassis	SLAC	M&S	2	0 wks	\$0.00	\$10,000.00	\$0.00	\$10,000.00	\$600.00	\$2,650.00	\$13,250
\dashv		SLAC M&S Total		M&S	0	10,000	\$0.00	\$0.00	\$0.00	\$10,000.00	\$0.00	\$0.00	\$0
31	1.2.1.9.4.4	Cable Guides	SLAC	B&H	1	2 wks	\$0.00	\$0.00	\$4,000.00	\$4,000.00	\$800.00	\$720.00	\$5,52
\dashv		SLACL PCD:Inst-Cabling-Elec Fab		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$6
32	1.2.1.9.4.4	Cable Guides	SLAC	M&S	1	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$318.00	\$2,43
\dashv		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$
33	1.2.1.9.4.5	RF Distribution L0,L1 Electronics	SLAC		0	2 wks	\$0.00	\$10,000.00	\$3,548.80	\$13,548.80	\$1,309.76	\$5,200.50	\$20,05
34	1.2.1.9.4.5	Laser Phase Locking Chassis	SLAC	B&H	3	2 wks	\$0.00	\$0.00	\$3,548.80	\$3,548.80	\$709.76	\$1,490.50	\$5,74
+		SLAC Klystron: Technician		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$3,548.80	\$0.00	\$0.00	\$
85	1.2.1.9.4.5	Laser Phase Locking Chassis	SLAC	M&S	3	0 wks	\$0.00	\$10,000.00	\$0.00	\$10,000.00	\$600.00	\$3,710.00	\$14,310

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ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		SLAC M&S Total		M&S	0	10,000	\$0.00	\$0.00	\$0.00	\$10,000.00	\$0.00	\$0.00	\$0.
86	1.2.1.9.4.6	Beam Phase / Length Electronics	SLAC		0	3 wks	\$0.00	\$30,000.00	\$5,323.20	\$35,323.20	\$2,864.64	\$19,093.92	\$57,281.
87	1.2.1.9.4.6	Fabrication	SLAC	B&H	4	3 wks	\$0.00	\$0.00	\$5,323.20	\$5,323.20	\$1,064.64	\$3,193.92	\$9,581
T		SLAC Klystron: Technician		B&H	0	3 wks	\$0.00	\$0.00	\$0.00	\$5,323.20	\$0.00	\$0.00	\$0
88	1.2.1.9.4.6	Fabrication	SLAC	M&S	4	0 wks	\$0.00	\$30,000.00	\$0.00	\$30,000.00	\$1,800.00	\$15,900.00	\$47,700
		SLAC M&S Total		M&S	0	30,000	\$0.00	\$0.00	\$0.00	\$30,000.00	\$0.00	\$0.00	\$0
89	1.2.1.9.4.7	RF Phase Measurement	SLAC		0	12 wks	\$0.00	\$36,000.00	\$21,292.80	\$57,292.80	\$6,418.56	\$15,927.84	\$79,639
90	1.2.1.9.4.7	12 units S-Band	SLAC	B&H	2	12 wks	\$0.00	\$0.00	\$21,292.80	\$21,292.80	\$4,258.56	\$6,387.84	\$31,939
\dashv		SLAC Klystron: Technician		B&H	0	12 wks	\$0.00	\$0.00	\$0.00	\$21,292.80	\$0.00	\$0.00	\$0
91	1.2.1.9.4.7	12 units S-Band	SLAC	M&S	2	0 wks	\$0.00	\$36,000.00	\$0.00	\$36,000.00	\$2,160.00	\$9,540.00	\$47,700
\dashv		SLAC M&S Total		M&S	0	36,000	\$0.00	\$0.00	\$0.00	\$36,000.00	\$0.00	\$0.00	\$0
92	1.2.1.9.4.8	DAC, SAM Breakout	SLAC		0	5 wks	\$0.00	\$12,000.00	\$9,323.20	\$21,323.20	\$2,584.64	\$5,976.96	\$29,884
93	1.2.1.9.4.8	Fab 6 units	SLAC	B&H	2	3 wks	\$0.00	\$0.00	\$5,323.20	\$5,323.20	\$1,064.64	\$1,596.96	\$7,984
\dashv		SLAC Klystron: Technician		B&H	0	3 wks	\$0.00	\$0.00	\$0.00	\$5,323.20	\$0.00	\$0.00	\$0
94	1.2.1.9.4.8	Cables 60 Fab and Route	SLAC	B&H	2	2 wks	\$0.00	\$0.00	\$4,000.00	\$4,000.00	\$800.00	\$1,200.00	\$6,000
\dashv		SLACL PCD:Inst-Cabling-Elec Fab		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$6
95	1.2.1.9.4.8	Cables 60 Fab and Route	SLAC	M&S	2	0 wks	\$0.00	\$12,000.00	\$0.00	\$12,000.00	\$720.00	\$3,180.00	\$15,90
		SLAC M&S Total		M&S	0	12,000	\$0.00	\$0.00	\$0.00	\$12,000.00	\$0.00	\$0.00	\$0
96	1.2.1.9.4.9	RF Sector 20 Enclosure	SLAC		0	2 wks	\$0.00	\$13,000.00	\$5,400.00	\$18,400.00	\$1,860.00	\$5,065.00	\$25,325
97	1.2.1.9.4.9	Insulated Enclosure	SLAC	M&S	2	0 wks	\$0.00	\$6,000.00	\$0.00	\$6,000.00	\$360.00	\$1,590.00	\$7,950
		SLAC M&S Total		M&S	0	6,000	\$0.00	\$0.00	\$0.00	\$6,000.00	\$0.00	\$0.00	\$(
98	1.2.1.9.4.9	Air / Electrical	SLAC	B&H	2	1 wk	\$0.00	\$0.00	\$2,720.00	\$2,720.00	\$544.00		\$4,08
30	1.2.1.0.4.0	SLAC T&M Crafts - Union Electrician	OLAG	B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,720.00	\$0.00	\$0.00	\$(
99	1.2.1.9.4.9	Air / Electrical	SLAC	M&S		0 wks	\$0.00	\$6,000.00	\$0.00	\$6,000.00	\$360.00		\$7,95
99	1.2.1.9.4.9		SLAC		2		•						
		SLAC M&S Total		M&S	0	6,000	\$0.00	\$0.00	\$0.00	\$6,000.00	\$0.00		\$0
00	1.2.1.9.4.9	LCW Supply - Chassis	SLAC	B&H	2	1 wk	\$0.00	\$0.00	\$2,680.00	\$2,680.00	\$536.00		\$4,02
		SLAC T&M Crafts - Union Pipefitter		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,680.00	\$0.00	\$0.00	\$
01	1.2.1.9.4.9	LCW Supply - Chassis	SLAC	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$265.00	\$1,32
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$
002	1.2.1.9.4.10	Modulator Referbish (4)	SLAC		0	8 wks	\$0.00	\$48,000.00	\$14,112.00	\$62,112.00	\$5,702.40	\$16,953.60	\$84,76
03	1.2.1.9.4.10	Refurbish Modulator	SLAC	B&H	2	4 wks	\$0.00	\$0.00	\$7,014.40	\$7,014.40	\$1,402.88	\$2,104.32	\$10,52
\dashv		SLAC Controls: Technician		B&H	0	4 wks	\$0.00	\$0.00	\$0.00	\$7,014.40	\$0.00	\$0.00	\$
004	1.2.1.9.4.10	Klystron Change to Source Tube	SLAC	B&H	2	4 wks	\$0.00	\$0.00	\$7,097.60	\$7,097.60	\$1,419.52	\$2,129.28	\$10,64
		SLAC Klystron: Technician		B&H	0	4 wks	\$0.00	\$0.00	\$0.00	\$7,097.60	\$0.00	\$0.00	\$6
005	1.2.1.9.4.10	Thyratron and Parts	SLAC	M&S	2	0 wks	\$0.00	\$48,000.00	\$0.00	\$48,000.00	\$2,880.00	\$12,720.00	\$63,600

ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		SLAC M&S Total		M&S	0	48,000	\$0.00	\$0.00	\$0.00	\$48,000.00	\$0.00	\$0.00	\$0.00
1006	1.2.1.9.4.11	Solid State Subbooster	SLAC		0	10 wks	\$0.00	\$60,000.00	\$17,744.00	\$77,744.00	\$7,148.80	\$21,223.20	\$106,116.00
1007	1.2.1.9.4.11	Amplifier	SLAC	B&H	2	5 wks	\$0.00	\$0.00	\$8,872.00	\$8,872.00	\$1,774.40	\$2,661.60	\$13,308.0
		SLAC Klystron: Technician		B&H	0	5 wks	\$0.00	\$0.00	\$0.00	\$8,872.00	\$0.00	\$0.00	\$0.00
1008	1.2.1.9.4.11	Amplifier	SLAC	M&S	2	0 wks	\$0.00	\$50,000.00	\$0.00	\$50,000.00	\$3,000.00	\$13,250.00	\$66,250.0
		SLAC M&S Total		M&S	0	50,000	\$0.00	\$0.00	\$0.00	\$50,000.00	\$0.00	\$0.00	\$0.00
1009	1.2.1.9.4.11	Phase Control	SLAC	M&S	2	0 wks	\$0.00	\$5,000.00	\$0.00	\$5,000.00	\$300.00	\$1,325.00	\$6,625.0
		SLAC M&S Total		M&S	0	5,000	\$0.00	\$0.00	\$0.00	\$5,000.00	\$0.00	\$0.00	\$0.00
1010	1.2.1.9.4.11	Amplitude Control	SLAC	M&S	2	0 wks	\$0.00	\$5,000.00	\$0.00	\$5,000.00	\$300.00	\$1,325.00	\$6,625.0
		SLAC M&S Total		M&S	0	5,000	\$0.00	\$0.00	\$0.00	\$5,000.00	\$0.00	\$0.00	\$0.00
1011	1.2.1.9.4.11	Integration	SLAC	B&H	2	5 wks	\$0.00	\$0.00	\$8,872.00	\$8,872.00	\$1,774.40	\$2,661.60	\$13,308.0
		SLAC Klystron: Technician		B&H	0	5 wks	\$0.00	\$0.00	\$0.00	\$8,872.00	\$0.00	\$0.00	\$0.00
1012	1.2.1.9.4.12	IPA Modifications	SLAC		0	2 wks	\$0.00	\$2,000.00	\$3,548.80	\$5,548.80	\$829.76	\$956.78	\$7,335.34
1013	1.2.1.9.4.12	Modify IPA Chassis	SLAC	B&H	1	1 wk	\$0.00	\$0.00	\$1,774.40	\$1,774.40	\$354.88	\$319.39	\$2,448.6
		SLAC Klystron: Technician		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$1,774.40	\$0.00	\$0.00	\$0.00
1014	1.2.1.9.4.12	Modify IPA Chassis	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219.0
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.00
1015	1.2.1.9.4.12	Recable Station	SLAC	B&H	1	1 wk	\$0.00	\$0.00	\$1,774.40	\$1,774.40	\$354.88	\$319.39	\$2,448.6
		SLAC Klystron: Technician		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$1,774.40	\$0.00	\$0.00	\$0.00
1016	1.2.1.9.4.12	Recable Station	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219.0
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.00
1017	1.2.1.9.4.13	Modulator Control Interface (4)	SLAC		0	3 wks	\$0.00	\$5,000.00	\$5,774.40	\$10.774.40	\$1,454.88	\$1.834.39	\$14,063.67
1018	1.2.1.9.4.13	``	SLAC	B&H	1	1 wk	\$0.00	\$0.00	\$1,774.40	\$1,774.40	\$354.88	\$319.39	\$2,448.6
1010	1.2.1.0.4.10	SLAC Klystron: Technician	OEAG	B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$1,774.40	\$0.00	\$0.00	\$0.00
1019	1.2.1.9.4.13	ŕ	SLAC	B&H		2 wks	\$0.00	\$0.00	\$4,000.00	\$4,000.00	\$800.00	\$720.00	\$5,520.0
1019	1.2.1.9.4.13		SLAC	B&H	1	2 wks	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	
		SLACL PCD:Inst-Cabling-Elec Fab			0								\$0.00
1020	1.2.1.9.4.13	Installation	SLAC	M&S	1	0 wks	\$0.00	\$5,000.00	\$0.00	\$5,000.00	\$300.00	\$795.00	\$6,095.0
		SLAC M&S Total		M&S	0	5,000	\$0.00	\$0.00	\$0.00	\$5,000.00	\$0.00	\$0.00	\$0.00
1021	1.2.1.9.4.14	RF Stability Setup	SLAC		0	150 wks	\$0.00	\$0.00	\$462,020.00	\$462,020.00	\$92,404.00	\$138,606.00	\$693,030.00
1022	1.2.1.9.4.14	RF feedback measurements	SLAC	ED&I	2	50 wks	\$0.00	\$0.00	\$144,660.00	\$144,660.00	\$28,932.00	\$43,398.00	\$216,990.0
		SLAC Klystron: Engineer		ED&I	0	50 wks	\$0.00	\$0.00	\$0.00	\$144,660.00	\$0.00	\$0.00	\$0.00
1023	1.2.1.9.4.14	RF Feedback Setup	SLAC	ED&I	2	50 wks	\$0.00	\$0.00	\$170,000.00	\$170,000.00	\$34,000.00	\$51,000.00	\$255,000.0
		SLAC Physicist - Senior Scientist		ED&I	0	50 wks	\$0.00	\$0.00	\$0.00	\$170,000.00	\$0.00	\$0.00	\$0.00
1024	1.2.1.9.4.14	RF Feedback Algorithm Adjustments	SLAC	ED&I	2	50 wks	\$0.00	\$0.00	\$147,360.00	\$147,360.00	\$29,472.00	\$44,208.00	\$221,040.0
		SLAC Controls: Engineer		ED&I	0	50 wks	\$0.00	\$0.00	\$0.00	\$147,360.00	\$0.00	\$0.00	\$0.00

ID 1025	CWBS 1.2.1.10	Task Name Lasers	OBS	PHASE	Risk	Units 257.45 wks	PED (Direct) \$0.00	M&S (Direct) \$1,860,504.00	Labor (Direct) \$863,123.52	Direct Cost \$2,723,627.52	Overhead Cost \$284,254.94	Contingency Cost \$612,614.37	Total Cost \$3,620,496.8
					"								
026	1.2.1.10.1	Gun Laser			0	228.45 wks	\$0.00	\$1,795,504.00	\$771,128.32	\$2,566,632.32	\$261,955.90	\$612,614.37	\$3,441,202.
027	1.2.1.10.1.1	Oscillator Laser & Pump	SLAC		1	8 wks	\$0.00	\$141,000.00	\$27,200.00	\$168,200.00	\$13,900.00	\$30,579.00	\$212,679.
028	1.2.1.10.1.1.1	Scientist	SLAC	ED&I	2	4 wks	\$0.00	\$0.00	\$13,600.00	\$13,600.00	\$2,720.00	\$4,080.00	\$20,400.
		SLAC Physicist -Scientist		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$13,600.00	\$0.00	\$0.00	\$0.
029	1.2.1.10.1.1.1	Scientist	SLAC	ED&I	2	4 wks	\$0.00	\$0.00	\$13,600.00	\$13,600.00	\$2,720.00	\$4,080.00	\$20,400
		SLAC Physicist - Senior Scientist		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$13,600.00	\$0.00	\$0.00	\$0
030	1.2.1.10.1.1.1	CW diode-pumped doubled Nd:YVO4 (eg. Model	SLAC	M&S	1	0 wks	\$0.00	(\$1,000.00)	\$0.00	(\$1,000.00)	(\$60.00)	(\$159.00)	(\$1,219.
		Millennia Xs-P) SLAC M&S Total		M&S	0	104,000	\$0.00	\$0.00	\$0.00	\$104,000.00	\$0.00	\$0.00	\$0
031	1.2.1.10.1.1.2	Nd:YVO4 Service Contract	SLAC	M&S	1	0 wks	\$0.00	\$13,000.00	\$0.00	\$13,000.00	\$780.00	\$2,067.00	\$15,847
		SLAC M&S Total		M&S	0	13,000	\$0.00	\$0.00	\$0.00	\$13,000.00	\$0.00	\$0.00	\$0
032	1.2.1.10.1.1.3	CW mode locked Ti:S Oscillator,1.4W (eg. Model	SLAC	M&S	1	0 wks	\$0.00	\$98,000.00	\$0.00	\$98,000.00	\$5,880.00	\$15,582.00	\$119,462
		3960-X1M) SLAC M&S Total		M&S	0	98,000	\$0.00	\$0.00	\$0.00	\$98,000.00	\$0.00	\$0.00	\$0
033	1.2.1.10.1.1.4	Ti:S Oscillator Service Contract	SLAC	M&S	1	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$318.00	\$2,438
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0
134	1.2.1.10.1.1.5		SLAC	M&S	1	0 wks	\$0.00	\$29,000.00	\$0.00	\$29,000.00	\$1,740.00	\$4,611.00	\$35,35
J34	1.2.1.10.1.1.5	SLAC M&S Total	SLAC	M&S	0	29,000	\$0.00	\$0.00	\$0.00	\$29,000.00	\$0.00	\$0.00	\$35,35
035	1.2.1.10.1.2		SLAC	IVI&S	0	29,000 8 wks	\$0.00	\$229,000.00	\$27,200.00	\$29,000.00	\$19,180.00	\$45,843.00	\$321,223
		Oscillator Diagnostics								. ,		. ,	
036	1.2.1.10.1.2.1	Scientist	SLAC	ED&I	2	4 wks	\$0.00	\$0.00	\$13,600.00	\$13,600.00	\$2,720.00	\$4,080.00	\$20,400
		SLAC Physicist -Scientist		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$13,600.00	\$0.00	\$0.00	\$0
037	1.2.1.10.1.2.1	Scientist	SLAC	ED&I	2	4 wks	\$0.00	\$0.00	\$13,600.00	\$13,600.00	\$2,720.00	\$4,080.00	\$20,400
		SLAC Physicist - Senior Scientist		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$13,600.00	\$0.00	\$0.00	\$0
038	1.2.1.10.1.2.1	Autocorrelators (scanning)	SLAC	M&S	1	0 wks	\$0.00	\$19,000.00	\$0.00	\$19,000.00	\$1,140.00	\$3,021.00	\$23,161
_		SLAC M&S Total		M&S	0	19,000	\$0.00	\$0.00	\$0.00	\$19,000.00	\$0.00	\$0.00	\$0
039	1.2.1.10.1.2.2	IR wavelength monitors (spectrometers)	SLAC	M&S	2	0 wks	\$0.00	\$5,000.00	\$0.00	\$5,000.00	\$300.00	\$1,325.00	\$6,625
		SLAC M&S Total		M&S	0	5,000	\$0.00	\$0.00	\$0.00	\$5,000.00	\$0.00	\$0.00	\$0
040	1.2.1.10.1.2.3	CCD camera	SLAC	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$530.00	\$2,650
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0
041	1.2.1.10.1.2.4	Power/energy meter (2 channel)	SLAC	M&S	1	0 wks	\$0.00	\$8,000.00	\$0.00	\$8,000.00	\$480.00	\$1,272.00	\$9,752
		SLAC M&S Total		M&S	0	8,000	\$0.00	\$0.00	\$0.00	\$8,000.00	\$0.00	\$0.00	\$(
)42	1.2.1.10.1.2.5	Power /energy sensor , 10W	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,21
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0
043	1.2.1.10.1.2.6	Power /energy sensor , 2W	SLAC	M&S	1	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$318.00	\$2,438
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0
044	1.2.1.10.1.2.7	>12 GHz photodiodes	SLAC	M&S	1	0 wks	\$0.00	\$14,000.00	\$0.00	\$14,000.00	\$840.00	\$2,226.00	\$17,066

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ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		SLAC M&S Total		M&S	0	14,000	\$0.00	\$0.00	\$0.00	\$14,000.00	\$0.00	\$0.00	\$0.0
045	1.2.1.10.1.2.8		SLAC	M&S	1	0 wks	\$0.00	\$70,000.00	\$0.00	\$70,000.00	\$4,200.00	\$11,130.00	\$85,330.0
		SLAC M&S Total		M&S	0	70,000	\$0.00	\$0.00	\$0.00	\$70,000.00	\$0.00	\$0.00	\$0.0
046	1.2.1.10.1.2.9	1-ns risetime diodes	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219.0
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.0
047	2.1.10.1.2.10	IR FROG	SLAC	M&S	1	0 wks	\$0.00	\$21,000.00	\$0.00	\$21,000.00	\$1,260.00	\$3,339.00	\$25,599.0
		SLAC M&S Total		M&S	0	21,000	\$0.00	\$0.00	\$0.00	\$21,000.00	\$0.00	\$0.00	\$0.0
048	2.1.10.1.2.11	Fiber-coupled spectrometer (vis-ir)	SLAC	M&S	2	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$180.00	\$795.00	\$3,975.
		SLAC M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0.0
049	2.1.10.1.2.12	Planar mirrors/splitters	SLAC	M&S	1	0 wks	\$0.00	\$11,000.00	\$0.00	\$11,000.00	\$660.00	\$1,749.00	\$13,409.
		SLAC M&S Total		M&S	0	11,000	\$0.00	\$0.00	\$0.00	\$11,000.00	\$0.00	\$0.00	\$0.
050	2.1.10.1.2.13	Mirror mounts	SLAC	M&S	1	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$180.00	\$477.00	\$3,657.
		SLAC M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0.
051	2.1.10.1.2.14		SLAC	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$530.00	\$2,650.
	2	SLAC M&S Total	OLITO	M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.
			81.4.0		0								
052	2.1.10.1.2.15	, i	SLAC	M&S	1	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$318.00	\$2,438
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.
053	2.1.10.1.2.16	'	SLAC	M&S	1	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
		SLAC M&S Total		M&S	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
054	2.1.10.1.2.17	Beam profiler system (includes ir,vis,uv cameras + PC)	SLAC	M&S	1	0 wks	\$0.00	\$60,000.00	\$0.00	\$60,000.00	\$3,600.00	\$9,540.00	\$73,140
		SLAC M&S Total		M&S	0	60,000	\$0.00	\$0.00	\$0.00	\$60,000.00	\$0.00	\$0.00	\$0.
055	2.1.10.1.2.18	Posts	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219.
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.
056	2.1.10.1.2.19	Posts Holders	SLAC	M&S	1	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$318.00	\$2,438.
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.
057	2.1.10.1.2.20	Post Holder Bases	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219.
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.
058	2.1.10.1.2.21	beam dumps	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219.
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.
059	1.2.1.10.1.3	Temporal Pulse Shaper	SLAC		2	21.4 wks	\$0.00	\$38,200.00	\$72,199.52	\$110,399.52	\$16,731.90	\$29,556.86	\$156,688.
	1.2.1.10.1.3.1	Scientist	SLAC	ED&I	2	12 wks	\$0.00	\$0.00	\$40,800.00	\$40,800.00	\$8,160.00	\$12,240.00	\$61,200.
	1.2.1.10.1.3.1		SLAC	ED&I		12 wks	\$0.00		\$0.00			\$0.00	\$01,200
001	1011010	SLAC Physicist - Senior Scientist	01.00		0			\$0.00		\$40,800.00	\$0.00		
061	1.2.1.10.1.3.1	Scientist	SLAC	ED&I	2	9 wks	\$0.00	\$0.00	\$30,600.00	\$30,600.00	\$6,120.00	\$9,180.00	\$45,900
		SLAC Physicist -Scientist		ED&I	0	9 wks	\$0.00	\$0.00	\$0.00	\$30,600.00	\$0.00	\$0.00	\$0.
062	1.2.1.10.1.3.1	Gratings, 1x2 in, 1700 li/mm, 780 nm	SLAC	M&S	2	0 wks	\$0.00	\$12,000.00	\$0.00	\$12,000.00	\$720.00	\$3,180.00	\$15,900.

ID	CWBS	Task Name	OBS	PHASE M&S	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		SLAC M&S Total			0	12,000	\$0.00	\$0.00	\$0.00	\$12,000.00	\$0.00	\$0.00	\$0.0
063	1.2.1.10.1.3.2	Grating mounts, tip,tilt,azim knobs	SLAC	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$530.00	\$2,650.0
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.
064	1.2.1.10.1.3.3	Lenses,D=2 in f=0.5m,coated, 780nm	SLAC	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$265.00	\$1,325.
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.
065	1.2.1.10.1.3.4	2 inch lens mounts	SLAC	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$265.00	\$1,325.
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.
066	1.2.1.10.1.3.5	Mask mounts	SLAC	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$265.00	\$1,325.
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.
067	1.2.1.10.1.3.6	Spatial light modulators for amplitude	SLAC	M&S	1	0 wks	\$0.00	\$7,000.00	\$0.00	\$7,000.00	\$420.00	\$1,113.00	\$8,533.
		SLAC M&S Total		M&S	0	7,000	\$0.00	\$0.00	\$0.00	\$7,000.00	\$0.00	\$0.00	\$0.
068	1.2.1.10.1.3.7	Spatial light modulators for phase	SLAC	M&S	1	0 wks	\$0.00	\$7,000.00	\$0.00	\$7,000.00	\$420.00	\$1,113.00	\$8,533.
		SLAC M&S Total		M&S	0	7,000	\$0.00	\$0.00	\$0.00	\$7,000.00	\$0.00	\$0.00	\$0.
069	1.2.1.10.1.3.8	Spatial modulator controllers	SLAC	M&S	1	0 wks	\$0.00	\$7,000.00	\$0.00	\$7,000.00	\$420.00	\$1,113.00	\$8,533.
		SLAC M&S Total		M&S	0	7,000	\$0.00	\$0.00	\$0.00	\$7,000.00	\$0.00	\$0.00	\$0.
070	1.2.1.10.1.3.9	PC with GPIB and interface to SCP	SLAC	M&S	2	0 wks	\$0.00	\$200.00	\$0.00	\$200.00	\$12.00	\$53.00	\$265
		SLAC M&S Total		M&S	0	200	\$0.00	\$0.00	\$0.00	\$200.00	\$0.00	\$0.00	\$0.
071	2.1.10.1.3.10	beam covers	SLAC	B&H	2	0.4 wks	\$0.00	\$0.00	\$799.52	\$799.52	\$159.90	\$239.86	\$1,199.
		SLAC Mech. Fab: Assembly Tech		B&H	0	0.4 wks	\$0.00	\$0.00	\$0.00	\$799.52	\$0.00	\$0.00	\$0.
1072	1.2.1.10.1.4	Dump Support Machining	SLAC		0	4.9 wks	\$0.00	\$217,000.00	\$16,099.52	\$233,099.52	\$16,239.90	\$60,542.91	\$309,882.
	1.2.1.10.1.4.1	Dump Support Assembly	SLAC	ED&I	2	2.5 wks	\$0.00	\$0.00	\$8,500.00	\$8,500.00	\$1,700.00	\$2,550.00	\$12,750.
1075	1.2.1.10.1.4.1	SLAC Physicist - Senior Scientist	SLAC	ED&I	0	2.5 wks	\$0.00	\$0.00	\$0.00	\$8,500.00	\$0.00	\$0.00	\$0.
1071	1.2.1.10.1.4.1	Scientist	SLAC	ED&I	2	2.5 WAS	\$0.00	\$0.00	\$6,800.00	\$6,800.00	\$1,360.00	\$2,040.00	\$10,200.
1074	1.2.1.10.1.4.1		SLAC										
		SLAC Physicist -Scientist		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$6,800.00	\$0.00	\$0.00	\$0.
1075	1.2.1.10.1.4.1	Gratings, 1x2 in, 1700 li/mm, 780 nm	SLAC	M&S	1	0 wks	\$0.00	\$12,000.00	\$0.00	\$12,000.00	\$720.00	\$1,908.00	\$14,628.
		SLAC M&S Total		M&S	0	12,000	\$0.00	\$0.00	\$0.00	\$12,000.00	\$0.00	\$0.00	\$0.
076	1.2.1.10.1.4.2		SLAC	M&S	2	0 wks	\$0.00	\$200,000.00	\$0.00	\$200,000.00	\$12,000.00	\$53,000.00	\$265,000.
		SLAC M&S Total		M&S	0	200,000	\$0.00	\$0.00	\$0.00	\$200,000.00	\$0.00	\$0.00	\$0.
077	1.2.1.10.1.4.3	Lenses,D=2 in f=0.5m,coated, 780nm	SLAC	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$265.00	\$1,325.
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.
078	1.2.1.10.1.4.4	2 inch lens mounts	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219.
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.
079	1.2.1.10.1.4.5	Prisms, 2x2 in, coated, 780nm	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219.
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.
080	1.2.1.10.1.4.6	Prism mount with tip,tilt	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219.

						LCLS_CD1_TEC							
ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.00
1081	1.2.1.10.1.4.7	Translation stages with micrometer	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219.00
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.00
1082	1.2.1.10.1.4.8	beam covers	SLAC	В&Н	1	0.4 wks	\$0.00	\$0.00	\$799.52	\$799.52	\$159.90	\$143.91	\$1,103.34
		SLAC Mech. Fab: Assembly Tech		B&H	0	0.4 wks	\$0.00	\$0.00	\$0.00	\$799.52	\$0.00	\$0.00	\$0.00
1083	1.2.1.10.1.5	Pockels Cells and Drivers (ir)			0	15.65 wks	\$0.00	\$27,002.00	\$52,649.52	\$79,651.52	\$12,150.02	\$20,300.17	\$112,101.72
1084	1.2.1.10.1.5.1	Senior Physicist	SLAC	ED&I	2	7 wks	\$0.00	\$0.00	\$23,800.00	\$23,800.00	\$4,760.00	\$7,140.00	\$35,700.00
		SLAC Physicist - Senior Scientist		ED&I	0	7 wks	\$0.00	\$0.00	\$0.00	\$23,800.00	\$0.00	\$0.00	\$0.00
1085	1.2.1.10.1.5.1	Physicist	SLAC	ED&I	2	8.25 wks	\$0.00	\$0.00	\$28,050.00	\$28,050.00	\$5,610.00	\$8,415.00	\$42,075.00
		SLAC Physicist -Scientist		ED&I	0	8.25 wks	\$0.00	\$0.00	\$0.00	\$28,050.00	\$0.00	\$0.00	\$0.00
1086	1.2.1.10.1.5.1	Pockels cells, 8mm, sol-gel@780nm	SLAC	M&S	1	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$180.00	\$477.00	\$3,657.00
		SLAC M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0.00
1087	1.2.1.10.1.5.2	Tilt mounts for pockels cells	SLAC	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$265.00	\$1,325.00
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.00
1088	1.2.1.10.1.5.3	V-block clamps for pockels cells	SLAC	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$265.00	\$1,325.00
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.00
1089	1.2.1.10.1.5.4	6.5 kV pulsers, full off-on-off in <12ns	SLAC	M&S	1	0 wks	\$0.00	\$20,000.00	\$0.00	\$20,000.00	\$1,200.00	\$3,180.00	\$24,380.00
		SLAC M&S Total		M&S	0	20,000	\$0.00	\$0.00	\$0.00	\$20,000.00	\$0.00	\$0.00	\$0.00
1090	1.2.1.10.1.5.5	Polarizers, coated for 780 nm (cubes)	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219.00
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.00
1091	1.2.1.10.1.5.6	Polarizer mounts	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219.00
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.00
1092	1.2.1.10.1.5.7		SLAC	M&S	1	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
		SLAC M&S Total	02.10	M&S	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
1002	1.2.1.10.1.5.8		SLAC	M&S	1	0 wks	\$0.00	\$1.00	\$0.00	\$1.00	\$0.06	\$0.16	\$1.22
1093	1.2.1.10.1.5.6	·	SLAC		'	U WKS							
		SLAC M&S Total		M&S	0	1	\$0.00	\$0.00	\$0.00	\$1.00	\$0.00	\$0.00	\$0.00
1094	1.2.1.10.1.5.9	·	SLAC	M&S	1	0 wks	\$0.00	\$1.00	\$0.00	\$1.00	\$0.06	\$0.16	\$1.22
		SLAC M&S Total		M&S	0	1	\$0.00	\$0.00	\$0.00	\$1.00	\$0.00	\$0.00	\$0.00
1095	2.1.10.1.5.10	·	SLAC	M&S	1	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
		SLAC M&S Total		M&S	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
1096	2.1.10.1.5.11	beam covers	SLAC	B&H	2	0.4 wks	\$0.00	\$0.00	\$799.52	\$799.52	\$159.90	\$239.86	\$1,199.28
		SLAC Mech. Fab: Assembly Tech		B&H	0	0.4 wks	\$0.00	\$0.00	\$0.00	\$799.52	\$0.00	\$0.00	\$0.00
1097	1.2.1.10.1.6	Pump Laser System	SLAC		0	22.8 wks	\$0.00	\$358,000.00	\$77,360.00	\$435,360.00	\$36,952.00	\$87,126.00	\$559,438.00
1098	1.2.1.10.1.6.1	Pump Laser System	SLAC	ED&I	2	11 wks	\$0.00	\$0.00	\$37,400.00	\$37,400.00	\$7,480.00	\$11,220.00	\$56,100.00
		SLAC Physicist - Senior Scientist		ED&I	0	11 wks	\$0.00	\$0.00	\$0.00	\$37,400.00	\$0.00	\$0.00	\$0.00

ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
099	1.2.1.10.1.6.1	Pump Laser System	SLAC	ED&I	2	11 wks	\$0.00	\$0.00	\$37,400.00	\$37,400.00	\$7,480.00	\$11,220.00	\$56,100.0
		SLAC Physicist -Scientist		ED&I	0	11 wks	\$0.00	\$0.00	\$0.00	\$37,400.00	\$0.00	\$0.00	\$0.0
100	1.2.1.10.1.6.1	Q-switched Nd:YAG, 532nm, 60HZ, 200mJ	SLAC	M&S	1	0 wks	\$0.00	\$238,000.00	\$0.00	\$238,000.00	\$14,280.00	\$37,842.00	\$290,122.0
		SLAC M&S Total		M&S	0	238,000	\$0.00	\$0.00	\$0.00	\$238,000.00	\$0.00	\$0.00	\$0.0
101	1.2.1.10.1.6.2	Nd:YAG Service Contract	SLAC	M&S	1	0 wks	\$0.00	\$16,000.00	\$0.00	\$16,000.00	\$960.00	\$2,544.00	\$19,504.0
		SLAC M&S Total		M&S	0	16,000	\$0.00	\$0.00	\$0.00	\$16,000.00	\$0.00	\$0.00	\$0.0
1102	1.2.1.10.1.6.3	Pockels cells(19mm) sol-gel @532nm	SLAC	M&S	2	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$180.00	\$795.00	\$3,975.0
		SLAC M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0.0
1103	1.2.1.10.1.6.4	Tilt mounts for pockels cells	SLAC	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$265.00	\$1,325.0
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.0
1104	1.2.1.10.1.6.5	V-block clamps for pockels cells	SLAC	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$265.00	\$1,325.0
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.0
105	1.2.1.10.1.6.6	6.5 KV pulser	SLAC	M&S	2	0 wks	\$0.00	\$20,000.00	\$0.00	\$20,000.00	\$1,200.00	\$5,300.00	\$26,500.0
		SLAC M&S Total		M&S	0	20,000	\$0.00	\$0.00	\$0.00	\$20,000.00	\$0.00	\$0.00	\$0.0
106	1.2.1.10.1.6.7	Pockels cell HV feedforward drivers	SLAC	M&S	2	0 wks	\$0.00	\$10,000.00	\$0.00	\$10,000.00	\$600.00	\$2,650.00	\$13,250.0
		SLAC M&S Total		M&S	0	10,000	\$0.00	\$0.00	\$0.00	\$10,000.00	\$0.00	\$0.00	\$0.0
107	1.2.1.10.1.6.8	PDU unit (80ns risetime, SCP interface	SLAC	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$530.00	\$2,650.0
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.0
108	1.2.1.10.1.6.9	CAMAC controller	SLAC	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$530.00	\$2,650.0
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.0
1109	2.1.10.1.6.10	Digital delay generators	SLAC	M&S	2	0 wks	\$0.00	\$5,000.00	\$0.00	\$5,000.00	\$300.00	\$1,325.00	\$6,625.0
		SLAC M&S Total		M&S	0	5,000	\$0.00	\$0.00	\$0.00	\$5,000.00	\$0.00	\$0.00	\$0.0
1110	2.1.10.1.6.11	Polarizers, coated for 532 nm (cubes)	SLAC	M&S	2	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$180.00	\$795.00	\$3,975.0
		SLAC M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0.0
1111	2.1.10.1.6.12	Polarizer mounts	SLAC	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$530.00	\$2,650.0
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.0
1112	2.1.10.1.6.13	Waveplates	SLAC	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$530.00	\$2,650.0
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.0
1113	2.1.10.1.6.14	Waveplate mounts	SLAC	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$265.00	\$1,325.0
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.0
114	2.1.10.1.6.15	irises	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219.0
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.0
1115	2.1.10.1.6.16	post collars	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219.0
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.0
116	2.1.10.1.6.17	posts	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219.0

ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.0
1117	2.1.10.1.6.18	post holders	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219.0
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.0
118	2.1.10.1.6.19	post holder bases	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219.0
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.0
119	2.1.10.1.6.20	CCD camera	SLAC	M&S	2	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$180.00	\$795.00	\$3,975.
		SLAC M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0.
120	2.1.10.1.6.21	planar mirrors/splitters	SLAC	M&S	2	0 wks	\$0.00	\$4,000.00	\$0.00	\$4,000.00	\$240.00	\$1,060.00	\$5,300.
		SLAC M&S Total		M&S	0	4,000	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$0.
121	2.1.10.1.6.22	mirror mounts	SLAC	M&S	2	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$180.00	\$795.00	\$3,975.
		SLAC M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0.
122	2.1.10.1.6.23	diodes (I nsec)	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.
123	2.1.10.1.6.24	6 GHz photodiodes	SLAC	M&S	1	0 wks	\$0.00	\$10,000.00	\$0.00	\$10,000.00	\$600.00	\$1,590.00	\$12,190
		SLAC M&S Total		M&S	0	10,000	\$0.00	\$0.00	\$0.00	\$10,000.00	\$0.00	\$0.00	\$0.
124	2.1.10.1.6.25	power/energy sensors	SLAC	M&S	1	0 wks	\$0.00	\$5,000.00	\$0.00	\$5,000.00	\$300.00	\$795.00	\$6,095
		SLAC M&S Total		M&S	0	5,000	\$0.00	\$0.00	\$0.00	\$5,000.00	\$0.00	\$0.00	\$0
125	2.1.10.1.6.26	power/energy meters	SLAC	M&S	1	0 wks	\$0.00	\$10,000.00	\$0.00	\$10,000.00	\$600.00	\$1,590.00	\$12,190
		SLAC M&S Total		M&S	0	10,000	\$0.00	\$0.00	\$0.00	\$10,000.00	\$0.00	\$0.00	\$0.
126	2.1.10.1.6.27	Faraday isolator	SLAC	M&S	1	0 wks	\$0.00	\$7,000.00	\$0.00	\$7,000.00	\$420.00	\$1,113.00	\$8,533
	2.11.10.110.21	SLAC M&S Total	02/10	M&S	0	7,000	\$0.00	\$0.00	\$0.00	\$7,000.00	\$0.00	\$0.00	\$0
127	2.1.10.1.6.28		SLAC	B&H	2	0.4 wks	\$0.00	\$0.00	\$1,280.00	\$1,280.00	\$256.00	\$384.00	\$1,920
121	2.1.10.1.0.20	SLAC Mech. Fab: Machine Shop	SLAC	B&H	0	0.4 wks	\$0.00	\$0.00	\$0.00	\$1,280.00	\$0.00	\$0.00	\$1,920
100	2.1.10.1.6.29	,	81.40			0.4 wks	\$0.00		\$0.00				
128	2.1.10.1.6.29	1	SLAC	M&S	2		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	\$1,000.00	****	\$1,000.00	\$60.00	\$265.00	\$1,325
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.
129	2.1.10.1.6.30		SLAC	M&S	1	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
		SLAC M&S Total		M&S	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
130	2.1.10.1.6.31	beam dumps	SLAC	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$530.00	\$2,650
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0
131	2.1.10.1.6.32	Integrate&hold mods (peak detector)	SLAC	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$265.00	\$1,325
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0
132	2.1.10.1.6.33	beam covers	SLAC	B&H	2	0.4 wks	\$0.00	\$0.00	\$1,280.00	\$1,280.00	\$256.00	\$384.00	\$1,920
		SLAC Mech. Fab: Machine Shop		B&H	0	0.4 wks	\$0.00	\$0.00	\$0.00	\$1,280.00	\$0.00	\$0.00	\$0
133	1.2.1.10.1.7	Low Power Pulse Compressor	SLAC		0	4.9 wks	\$0.00	\$13,000.00	\$16,580.00	\$29,580.00	\$4,096.00	\$8,419.00	\$42,095.
134	1.2.1.10.1.7.1	Scientist	SLAC	ED&I	2	2 wks	\$0.00	\$0.00	\$6,800.00	\$6.800.00	\$1,360.00	\$2,040.00	\$10,200.

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ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		SLAC Physicist - Senior Scientist		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$6,800.00	\$0.00	\$0.00	\$0.
135	1.2.1.10.1.7.1	Scientist	SLAC	ED&I	2	2.5 wks	\$0.00	\$0.00	\$8,500.00	\$8,500.00	\$1,700.00	\$2,550.00	\$12,750.
		SLAC Physicist -Scientist		ED&I	0	2.5 wks	\$0.00	\$0.00	\$0.00	\$8,500.00	\$0.00	\$0.00	\$0.
136	1.2.1.10.1.7.1	Gratings, 1x2 in, 1700 l/mm, 780nm	SLAC	M&S	2	0 wks	\$0.00	\$8,000.00	\$0.00	\$8,000.00	\$480.00	\$2,120.00	\$10,600
		SLAC M&S Total		M&S	0	8,000	\$0.00	\$0.00	\$0.00	\$8,000.00	\$0.00	\$0.00	\$0.
137	1.2.1.10.1.7.2	Grating mounts with tip/tilt/azim knobs	SLAC	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$530.00	\$2,650
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0
138	1.2.1.10.1.7.3	Prisms, 2x2 in, coated 780 nm	SLAC	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$265.00	\$1,325
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0
139	1.2.1.10.1.7.4	Prism mounts with tip/tilt	SLAC	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$265.00	\$1,325
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0
140	1.2.1.10.1.7.5	Translation stage with micrometer	SLAC	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$265.00	\$1,325
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0
141	1.2.1.10.1.7.6	Optical rail (12 inch)	SLAC	M&S	1	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
		SLAC M&S Total		M&S	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
142	1.2.1.10.1.7.7	beam cover	SLAC	B&H	2	0.4 wks	\$0.00	\$0.00	\$1,280.00	\$1,280.00	\$256.00	\$384.00	\$1,920
		SLAC Mech. Fab: Machine Shop		B&H	0	0.4 wks	\$0.00	\$0.00	\$0.00	\$1,280.00	\$0.00	\$0.00	\$0
143	1.2.1.10.1.8	Timing Stabilization	SLAC		0	8 wks	\$0.00	\$195,000.00	\$27,200.00	\$222,200.00	\$17,140.00	\$54,429.00	\$293,769
144	1.2.1.10.1.8.1	Scientist	SLAC	ED&I	2	6 wks	\$0.00	\$0.00	\$20,400.00	\$20,400.00	\$4,080.00	\$6,120.00	\$30,600
		SLAC Physicist - Senior Scientist		ED&I	0	6 wks	\$0.00	\$0.00	\$0.00	\$20,400.00	\$0.00	\$0.00	\$0
145	1.2.1.10.1.8.1	Scientist	SLAC	ED&I	2	2 wks	\$0.00	\$0.00	\$6,800.00	\$6,800.00	\$1,360.00	\$2,040.00	\$10,200
		SLAC Physicist -Scientist		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$6,800.00	\$0.00	\$0.00	\$0
146	1.2.1.10.1.8.1	Fiber optic link	SLAC	M&S	2	0 wks	\$0.00	\$20,000.00	\$0.00	\$20,000.00	\$1,200.00	\$5,300.00	\$26,500
		SLAC M&S Total		M&S	0	20,000	\$0.00	\$0.00	\$0.00	\$20,000.00	\$0.00	\$0.00	\$0
147	1.2.1.10.1.8.2		SLAC	M&S	1	0 wks	\$0.00	\$7,000.00	\$0.00	\$7,000.00	\$420.00	\$1,113.00	\$8,533
	1.2.11.0.110.2	SLAC M&S Total	02.10	M&S	0	7,000	\$0.00	\$0.00	\$0.00	\$7,000.00	\$0.00	\$0.00	\$0,000
140	1.2.1.10.1.8.3		SLAC	M&S		0 wks	\$0.00	\$4,000.00	\$0.00	\$4,000.00	\$240.00	\$1,060.00	\$5,300
140	1.2.1.10.1.6.3		SLAC		2								
		SLAC M&S Total		M&S	0	4,000	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$0
149	1.2.1.10.1.8.4	RF amplifier	SLAC	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$530.00	\$2,65
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$
150	1.2.1.10.1.8.5	Isolator	SLAC	M&S	2	0 wks	\$0.00	\$10,000.00	\$0.00	\$10,000.00	\$600.00	\$2,650.00	\$13,25
		SLAC M&S Total		M&S	0	10,000	\$0.00	\$0.00	\$0.00	\$10,000.00	\$0.00	\$0.00	\$6
151	1.2.1.10.1.8.6	Phase shifter	SLAC	M&S	2	0 wks	\$0.00	\$4,000.00	\$0.00	\$4,000.00	\$240.00	\$1,060.00	\$5,300
		SLAC M&S Total		M&S	0	4,000	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$0
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ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		SLAC M&S Total		M&S	0	4,000	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$0.0
153	1.2.1.10.1.8.8	DC amp, 200V	SLAC	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$265.00	\$1,325.0
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.0
154	1.2.1.10.1.8.9	DC amp, 10V	SLAC	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$265.00	\$1,325.0
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.0
155	2.1.10.1.8.10	20 GHz sampling scope	SLAC	M&S	1	0 wks	\$0.00	\$44,000.00	\$0.00	\$44,000.00	\$2,640.00	\$6,996.00	\$53,636.
		SLAC M&S Total		M&S	0	44,000	\$0.00	\$0.00	\$0.00	\$44,000.00	\$0.00	\$0.00	\$0.
156	2.1.10.1.8.11	DC-3GHz spectrum analyzer	SLAC	M&S	2	0 wks	\$0.00	\$50,000.00	\$0.00	\$50,000.00	\$3,000.00	\$13,250.00	\$66,250.
		SLAC M&S Total		M&S	0	50,000	\$0.00	\$0.00	\$0.00	\$50,000.00	\$0.00	\$0.00	\$0.
157	2.1.10.1.8.12	Computer interface	SLAC	M&S	2	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$180.00	\$795.00	\$3,975.
		SLAC M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0.0
158	2.1.10.1.8.13	Prism on computer controlled stage	SLAC	M&S	2	0 wks	\$0.00	\$7,000.00	\$0.00	\$7,000.00	\$420.00	\$1,855.00	\$9,275.
		SLAC M&S Total		M&S	0	7,000	\$0.00	\$0.00	\$0.00	\$7,000.00	\$0.00	\$0.00	\$0.
159	2.1.10.1.8.14	Integrated elecro-optic module	SLAC	M&S	2	0 wks	\$0.00	\$7,000.00	\$0.00	\$7,000.00	\$420.00	\$1,855.00	\$9,275.
		SLAC M&S Total		M&S	0	7,000	\$0.00	\$0.00	\$0.00	\$7,000.00	\$0.00	\$0.00	\$0.
160	2.1.10.1.8.15	Planar mirrors / splitters	SLAC	M&S	2	0 wks	\$0.00	\$6,000.00	\$0.00	\$6,000.00	\$360.00	\$1,590.00	\$7,950
		SLAC M&S Total		M&S	0	6,000	\$0.00	\$0.00	\$0.00	\$6,000.00	\$0.00	\$0.00	\$0.
161	2.1.10.1.8.16	BPM or res. Cavity	SLAC	M&S	2	0 wks	\$0.00	\$5,000.00	\$0.00	\$5,000.00	\$300.00	\$1,325.00	\$6,625.
		SLAC M&S Total		M&S	0	5,000	\$0.00	\$0.00	\$0.00	\$5,000.00	\$0.00	\$0.00	\$0.
1162	2.1.10.1.8.17		SLAC	M&S	2	0 wks	\$0.00	\$20,000.00	\$0.00	\$20,000.00	\$1,200.00	\$5,300.00	\$26,500.
	2	SLAC M&S Total	02/10	M&S	0	20,000	\$0.00	\$0.00	\$0.00	\$20,000.00	\$0.00	\$0.00	\$0.
1162	1.2.1.10.1.9		SLAC	mao	0	51.9 wks	\$0.00	\$78,000.00	\$174,730.00	\$252,730.00	\$39,626.00	\$70,333.00	\$362,689.0
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1164	1.2.1.10.1.9.1	Scientist	SLAC	ED&I	2	28 wks	\$0.00	\$0.00	\$95,200.00	\$95,200.00	\$19,040.00	\$28,560.00	\$142,800.
		SLAC Physicist - Senior Scientist		ED&I	0	28 wks	\$0.00	\$0.00	\$0.00	\$95,200.00	\$0.00	\$0.00	\$0.
165	1.2.1.10.1.9.1	Scientist	SLAC	ED&I	2	22 wks	\$0.00	\$0.00	\$74,800.00	\$74,800.00	\$14,960.00	\$22,440.00	\$112,200.
		SLAC Physicist -Scientist		ED&I	0	22 wks	\$0.00	\$0.00	\$0.00	\$74,800.00	\$0.00	\$0.00	\$0.
166	1.2.1.10.1.9.1	Ti-Sapphire crystals	SLAC	M&S	2	0 wks	\$0.00	\$8,000.00	\$0.00	\$8,000.00	\$480.00	\$2,120.00	\$10,600.
		SLAC M&S Total		M&S	0	8,000	\$0.00	\$0.00	\$0.00	\$8,000.00	\$0.00	\$0.00	\$0.
167	1.2.1.10.1.9.2	Hor crystal mounts with water cooling	SLAC	ED&I	2	1.5 wks	\$0.00	\$0.00	\$3,450.00	\$3,450.00	\$690.00	\$1,035.00	\$5,175.
		SLAC Mech Drafting/Design		ED&I	0	1.5 wks	\$0.00	\$0.00	\$0.00	\$3,450.00	\$0.00	\$0.00	\$0.
168	1.2.1.10.1.9.3	Planar mirrors/splitters	SLAC	M&S	2	0 wks	\$0.00	\$6,000.00	\$0.00	\$6,000.00	\$360.00	\$1,590.00	\$7,950.
		SLAC M&S Total		M&S	0	6,000	\$0.00	\$0.00	\$0.00	\$6,000.00	\$0.00	\$0.00	\$0.
169	1.2.1.10.1.9.4	Mirror mounts	SLAC	M&S	2	0 wks	\$0.00	\$4,000.00	\$0.00	\$4,000.00	\$240.00	\$1,060.00	\$5,300.
		SLAC M&S Total		M&S	0	4,000	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$0.
170	1.2.1.10.1.9.5	Spherical lenses, f = 1m, coated	SLAC	M&S	2	0 wks	\$0.00	\$23,000.00	\$0.00	\$23,000.00	\$1,380.00	\$6,095.00	\$30,475.

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ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		SLAC M&S Total		M&S	0	23,000	\$0.00	\$0.00	\$0.00	\$23,000.00	\$0.00	\$0.00	\$0.0
171	1.2.1.10.1.9.6	Lens mounts	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219.0
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.0
172	1.2.1.10.1.9.7	Pinholes	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219.
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.
173	1.2.1.10.1.9.8	Pinhole mounts (with xy translation)	SLAC	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$265.00	\$1,325.
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.
174	1.2.1.10.1.9.9	Alignment irises (on posts)	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219.
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.
175	2.1.10.1.9.10	post collars	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219.
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.
176	2.1.10.1.9.11	Posts	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219.
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.0
177	2.1.10.1.9.12	Post Holders	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219.
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.
178	2.1.10.1.9.13		SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219
	2.1.10.1.0.10	SLAC M&S Total	OLAO	M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.
170	2.1.10.1.9.14		SLAC	M&S	2	0 wks	\$0.00	\$5,000.00	\$0.00	\$5,000.00	\$300.00	\$1,325.00	\$6,625.
179	2.1.10.1.9.14		SLAC										
		SLAC M&S Total		M&S	0	5,000	\$0.00	\$0.00	\$0.00	\$5,000.00	\$0.00	\$0.00	\$0.
180	2.1.10.1.9.15	· ·	SLAC	M&S	1	0 wks	\$0.00	\$6,000.00	\$0.00	\$6,000.00	\$360.00	\$954.00	\$7,314
		SLAC M&S Total		M&S	0	6,000	\$0.00	\$0.00	\$0.00	\$6,000.00	\$0.00	\$0.00	\$0.
1181	2.1.10.1.9.16	Power/energy meters	SLAC	M&S	1	0 wks	\$0.00	\$13,000.00	\$0.00	\$13,000.00	\$780.00	\$2,067.00	\$15,847.
		SLAC M&S Total		M&S	0	13,000	\$0.00	\$0.00	\$0.00	\$13,000.00	\$0.00	\$0.00	\$0.
182	2.1.10.1.9.17	Half waveplates	SLAC	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$530.00	\$2,650.
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.
183	2.1.10.1.9.18	waveplate mounts	SLAC	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$265.00	\$1,325.
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.
184	2.1.10.1.9.19	Polarizing cube	SLAC	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$265.00	\$1,325.
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.
185	2.1.10.1.9.20	polarizer cube mount	SLAC	M&S	2	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
		SLAC M&S Total		M&S	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
186	2.1.10.1.9.21	beam dumps	SLAC	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$265.00	\$1,325.
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.
187	2.1.10.1.9.22		SLAC	B&H	2	0.4 wks	\$0.00	\$0.00	\$1,280.00	\$1,280.00	\$256.00	\$384.00	\$1,920
			35.10										
		SLAC Mech. Fab: Machine Shop		B&H	0	0.4 wks	\$0.00	\$0.00	\$0.00	\$1,280.00	\$0.00	\$0.00	\$0.

ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
	1.2.1.10.1.10	Amplifier Diagnostics	SLAC	111102	0	15.25 wks	\$0.00	\$89,000.00	\$51,850.00	\$140,850.00	\$15,710.00	\$35,006.00	\$191,566.0
1189	2.1.10.1.10.1	Scientist	SLAC	ED&I	2	8.25 wks	\$0.00	\$0.00	\$28,050.00	\$28,050.00	\$5,610.00	\$8,415.00	\$42,075.0
		SLAC Physicist - Senior Scientist		ED&I	0	8.25 wks	\$0.00	\$0.00	\$0.00	\$28,050.00	\$0.00	\$0.00	\$0.0
190	2.1.10.1.10.1	Scientist	SLAC	ED&I	2	7 wks	\$0.00	\$0.00	\$23,800.00	\$23,800.00	\$4,760.00	\$7,140.00	\$35,700.0
		SLAC Physicist -Scientist		ED&I	0	7 wks	\$0.00	\$0.00	\$0.00	\$23,800.00	\$0.00	\$0.00	\$0.0
1191	2.1.10.1.10.1	Power/energy meters (2 channel)	SLAC	M&S	1	0 wks	\$0.00	\$13,000.00	\$0.00	\$13,000.00	\$780.00	\$2,067.00	\$15,847.0
		SLAC M&S Total		M&S	0	13,000	\$0.00	\$0.00	\$0.00	\$13,000.00	\$0.00	\$0.00	\$0.0
192	2.1.10.1.10.2	Power/energy sensors	SLAC	M&S	1	0 wks	\$0.00	\$6,000.00	\$0.00	\$6,000.00	\$360.00	\$954.00	\$7,314.0
		SLAC M&S Total		M&S	0	6,000	\$0.00	\$0.00	\$0.00	\$6,000.00	\$0.00	\$0.00	\$0.0
193	2.1.10.1.10.3	ND Filter set	SLAC	M&S	2	0 wks	\$0.00	\$6,000.00	\$0.00	\$6,000.00	\$360.00	\$1,590.00	\$7,950.0
		SLAC M&S Total		M&S	0	6,000	\$0.00	\$0.00	\$0.00	\$6,000.00	\$0.00	\$0.00	\$0.0
194	2.1.10.1.10.4	532 nm filter	SLAC	M&S	2	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
		SLAC M&S Total		M&S	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
195	2.1.10.1.10.5	780 nm filter	SLAC	M&S	2	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
		SLAC M&S Total		M&S	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
196	2.1.10.1.10.6	Filter/attenuator holders	SLAC	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$265.00	\$1,325.0
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.0
197	2.1.10.1.10.7	photodiodes (nsec)	SLAC	M&S	1	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$318.00	\$2,438.0
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.0
198	2.1.10.1.10.8	12 GHz photodiode	SLAC	M&S	1	0 wks	\$0.00	\$14,000.00	\$0.00	\$14,000.00	\$840.00	\$2,226.00	\$17,066.0
		SLAC M&S Total		M&S	0	14,000	\$0.00	\$0.00	\$0.00	\$14,000.00	\$0.00	\$0.00	\$0.0
199	2.1.10.1.10.9	CCD cameras	SLAC	M&S	2	0 wks	\$0.00	\$6,000.00	\$0.00	\$6,000.00	\$360.00	\$1,590.00	\$7,950.0
		SLAC M&S Total		M&S	0	6,000	\$0.00	\$0.00	\$0.00	\$6,000.00	\$0.00	\$0.00	\$0.0
200	1.1.10.1.10.10	Frame grabber card for PC	SLAC	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$265.00	\$1,325.0
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.0
201	1.1.10.1.10.11	Labview software	SLAC	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$530.00	\$2,650.0
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.0
202	1.1.10.1.10.12	Beam analysis software	SLAC	M&S	2	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$180.00	\$795.00	\$3,975.0
		SLAC M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0.0
203	1.1.10.1.10.13	planar mirrors/splitters	SLAC	M&S	2	0 wks	\$0.00	\$5,000.00	\$0.00	\$5,000.00	\$300.00	\$1,325.00	\$6,625.0
		SLAC M&S Total		M&S	0	5,000	\$0.00	\$0.00	\$0.00	\$5,000.00	\$0.00	\$0.00	\$0.0
204	1.1.10.1.10.14	mirror mounts	SLAC	M&S	2	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$180.00	\$795.00	\$3,975.0
		SLAC M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0.0
205	1.1.10.1.10.15	FROG (ir)	SLAC	M&S	2	0 wks	\$0.00	\$21,000.00	\$0.00	\$21,000.00	\$1,260.00	\$5,565.00	\$27,825.0
		SLAC M&S Total		M&S	0	21,000	\$0.00	\$0.00	\$0.00	\$21,000.00	\$0.00	\$0.00	\$0.0

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ID		Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
206	1.1.10.1.10.16	PC (FROG analyses)	SLAC	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$530.00	\$2,650.0
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.0
207	1.1.10.1.10.17	alignment irises	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219.0
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.0
208	1.1.10.1.10.18	post collars	SLAC	M&S	1	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
		SLAC M&S Total		M&S	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
209	.1.10.1.10.19	posts	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219.
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.
210	1.1.10.1.10.20	post holders	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219.
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.
211	1.1.10.1.10.21	post holder bases	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219.
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.
212	1.2.1.10.1.11	Vacuum Spatial Filters	SLAC	, , , , , ,	0	4.9 wks	\$0.00	\$0.00	\$16,580.00	\$16,580.00	\$3,316.00	\$4,974.00	\$24,870.
		Scientist		EDOL									
213	2.1.10.1.11.1		SLAC	ED&I	2	2 wks	\$0.00	\$0.00	\$6,800.00	\$6,800.00	\$1,360.00	\$2,040.00	\$10,200
		SLAC Physicist - Senior Scientist		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$6,800.00	\$0.00	\$0.00	\$0.
214	2.1.10.1.11.1	Scientist	SLAC	ED&I	2	2.5 wks	\$0.00	\$0.00	\$8,500.00	\$8,500.00	\$1,700.00	\$2,550.00	\$12,750
		SLAC Physicist - Senior Scientist		ED&I	0	2.5 wks	\$0.00	\$0.00	\$0.00	\$8,500.00	\$0.00	\$0.00	\$0
215	2.1.10.1.11.1	Lenses, f ~ 0.5 m, AR coated	SLAC	M&S	1	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
		SLAC M&S Total		M&S	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
216	2.1.10.1.11.2		SLAC	M&S	1	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
		viewport) SLAC M&S Total		M&S	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
217	2.1.10.1.11.3	Vacuum welded bellows	SLAC	M&S	2	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
		SLAC M&S Total		M&S	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
218	2.1.10.1.11.4	Diamond pinholes, mounted	SLAC	M&S	2	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
		SLAC M&S Total		M&S	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
210	2.1.10.1.11.5		SLAC	M&S	2	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
210	2.1.10.1.11.0	SLAC M&S Total	OLAO	M&S	0	0 11110	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
200	2.1.10.1.11.6		SLAC	M&S		0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
220	2.1.10.1.11.6	···	SLAC		2								
		SLAC M&S Total		M&S	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
221	2.1.10.1.11.7	Ion-pump controller and cable	SLAC	M&S	1	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
		SLAC M&S Total		M&S	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
222	2.1.10.1.11.8	Rack-mount, setpoint display, pumps	SLAC	M&S	1	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
		SLAC M&S Total		M&S	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
223	2.1.10.1.11.9	Turbo roughing and support pump	SLAC	M&S	2	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
		SLAC M&S Total	-	M&S	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.

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ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
1224	1.1.10.1.11.10	Misc vacuum hardware	SLAC	M&S	2	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		\$0.00
		SLAC M&S Total		M&S	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
1225	1.1.10.1.11.11	Vacuum windows (AR coated for 780 nm)	SLAC	M&S	2	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
		SLAC M&S Total		M&S	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
226	1.1.10.1.11.12	lens mounts	SLAC	M&S	2	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
		SLAC M&S Total		M&S	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
227	1.1.10.1.11.13	beam covers	SLAC	B&H	2	0.4 wks	\$0.00	\$0.00	\$1,280.00	\$1,280.00	\$256.00	\$384.00	\$1,920.00
		SLAC Mech. Fab: Machine Shop		B&H	0	0.4 wks	\$0.00	\$0.00	\$0.00	\$1,280.00	\$0.00	\$0.00	\$0.00
1228	1.2.1.10.1.12	Transverse Mode Flattener	SLAC		0	3 wks	\$0.00	\$5,000.00	\$10,200.00	\$15,200.00	\$2,340.00	\$4,385.00	\$21,925.00
1229	2.1.10.1.12.1	Scientist	SLAC	ED&I	2	1.5 wks	\$0.00	\$0.00	\$5,100.00	\$5,100.00	\$1,020.00	\$1,530.00	\$7,650.00
		SLAC Physicist - Senior Scientist		ED&I	0	1.5 wks	\$0.00	\$0.00	\$0.00	\$5,100.00	\$0.00	\$0.00	\$0.00
230	2.1.10.1.12.1	Scientist	SLAC	ED&I	2	1.5 wks	\$0.00	\$0.00	\$5,100.00	\$5,100.00	\$1,020.00	\$1,530.00	\$7,650.00
		SLAC Physicist -Scientist		ED&I	0	1.5 wks	\$0.00	\$0.00	\$0.00	\$5,100.00	\$0.00	\$0.00	\$0.00
231	2.1.10.1.12.1	Lenses	SLAC	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$265.00	\$1,325.00
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.00
232	2.1.10.1.12.2	Lens mounts	SLAC	M&S	1	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
		SLAC M&S Total		M&S	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
233	2.1.10.1.12.3	profile flattener	SLAC	M&S	2	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$180.00	\$795.00	\$3,975.00
		SLAC M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0.00
1234	2.1.10.1.12.4	Flattener mount	SLAC	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$265.00	\$1,325.0
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.00
1235	2.1.10.1.12.5	alignment irises	SLAC	M&S	1	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
		SLAC M&S Total		M&S	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
1236	2.1.10.1.12.6	post collars	SLAC	M&S	1	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
		SLAC M&S Total		M&S	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
237	2.1.10.1.12.7	Posts	SLAC	M&S	1	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
		SLAC M&S Total		M&S	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
238	2.1.10.1.12.8	Post Holders	SLAC	M&S	1	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
		SLAC M&S Total		M&S	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
239	2.1.10.1.12.9	Post Holder Bases	SLAC	M&S	1	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
		SLAC M&S Total		M&S	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
1240	1.2.1.10.1.13	High Power Pulse Compressor	SLAC		0	6.4 wks	\$0.00	\$0.00	\$20,400.00	\$20,400.00	\$4,080.00	\$6,120.00	\$30,600.00
1241	2.1.10.1.13.1	Scientist	SLAC	ED&I	2	3 wks	\$0.00	\$0.00	\$10,200.00	\$10,200.00	\$2,040.00	\$3,060.00	\$15,300.00
		SLAC Physicist - Senior Scientist		ED&I	0	3 wks	\$0.00	\$0.00	\$0.00	\$10,200.00	\$0.00	\$0.00	\$0.00
242	2.1.10.1.13.1	Scientist	SLAC	ED&I	2	3 wks	\$0.00	\$0.00	\$10,200.00	\$10,200.00	\$2,040.00	\$3,060.00	\$15,300.00

ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		SLAC Physicist -Scientist		ED&I	0	3 wks	\$0.00	\$0.00	\$0.00	\$10,200.00	\$0.00	\$0.00	\$0.0
243	2.1.10.1.13.1	Gratings, 2x4 in, 1700 l/mm, 780 nm	SLAC	M&S	1	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
		SLAC M&S Total		M&S	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
244	2.1.10.1.13.2	Grating mounts with tip/tilt/azim knobs	SLAC	M&S	1	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
		SLAC M&S Total		M&S	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
245	2.1.10.1.13.3	Prisms, 3x3 in, coated 780 nm	SLAC	M&S	2	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
		SLAC M&S Total		M&S	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
246	2.1.10.1.13.4	Prism mounts with tip/tilt	SLAC	M&S	2	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
		SLAC M&S Total		M&S	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
247	2.1.10.1.13.5	Translation stages with micrometer	SLAC	M&S	2	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
		SLAC M&S Total		M&S	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
248	2.1.10.1.13.6	Optical rail (24 inch)	SLAC	M&S	2	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
		SLAC M&S Total		M&S	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
249	2.1.10.1.13.7		SLAC	M&S	1	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
	2	SLAC M&S Total	027.0	M&S	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
				M&S									
250	2.1.10.1.13.8		SLAC		1	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
		SLAC M&S Total		M&S	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
251	2.1.10.1.13.9	, and the second	SLAC	M&S	2	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
		SLAC M&S Total		M&S	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
252	:.1.10.1.13.10	post collars	SLAC	M&S	2	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
		SLAC M&S Total		M&S	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
253	1.1.10.1.13.11	Posts	SLAC	M&S	2	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
		SLAC M&S Total		M&S	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
254	1.1.10.1.13.12	Post Holders	SLAC	M&S	2	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
		SLAC M&S Total		M&S	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
255	L1.10.1.13.13	Post Holder Bases	SLAC	M&S	2	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
		SLAC M&S Total		M&S	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
256	!.1.10.1.13.14	beam covers	SLAC		2	0.4 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
257	1.2.1.10.1.14	Frequency Conversion	SLAC		0	31.15 wks	\$0.00	\$115,300.00	\$105,680.00	\$220,980.00	\$28,054.00	\$58,770.50	\$307,804.
258	2.1.10.1.14.1	Scientist	SLAC	ED&I	2	18 wks	\$0.00	\$0.00	\$61,200.00	\$61,200.00	\$12,240.00	\$18,360.00	\$91,800
	2	SLAC Physicist - Senior Scientist	02/10	ED&I	0	18 wks	\$0.00	\$0.00	\$0.00	\$61,200.00	\$0.00	\$0.00	\$0.
250	2.1.10.1.14.1		SLAC	ED&I	2	12 wks	\$0.00	\$0.00	\$40,800.00	\$40,800.00	\$8,160.00	\$12,240.00	\$61,200
208	2.1.10.1.14.1		SLAC	ED&I					\$40,800.00				
		SLAC Physicist -Scientist			0	12 wks	\$0.00	\$0.00	, , , , ,	\$40,800.00	\$0.00	\$0.00	\$0
260	2.1.10.1.14.1	, , , , ,	SLAC	M&S	2	0 wks	\$0.00	\$6,000.00	\$0.00	\$6,000.00	\$360.00	\$1,590.00	\$7,950
		SLAC M&S Total		M&S	0	6,000	\$0.00	\$0.00	\$0.00	\$6,000.00	\$0.00	\$0.00	\$0.

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ID 261	CWBS 2.1.10.1.14.2	Task Name Frequency tripling crystal	OBS SLAC	PHASE M&S	Risk	Units 0 wks	PED (Direct)	M&S (Direct) \$6,000.00	Labor (Direct)	Direct Cost \$6,000.00	Overhead Cost \$360.00	Contingency Cost \$1,590.00	Total Cost \$7,950.
261	2.1.10.1.14.2		SLAC		2		*****		*****				
		SLAC M&S Total		M&S	0	6,000	\$0.00	\$0.00	\$0.00	\$6,000.00	\$0.00	\$0.00	\$0.
262	2.1.10.1.14.3	Crystal Mounts (tip/tilt/rotation)	SLAC	B&H	2	0.5 wks	\$0.00	\$0.00	\$1,600.00	\$1,600.00	\$320.00	\$480.00	\$2,400.
		SLAC Mech. Fab: Machine Shop		B&H	0	0.5 wks	\$0.00	\$0.00	\$0.00	\$1,600.00	\$0.00	\$0.00	\$0
63	2.1.10.1.14.4	crystal shroud & temp control	SLAC	B&H	1	0.25 wks	\$0.00	\$0.00	\$800.00	\$800.00	\$160.00	\$144.00	\$1,104
		SLAC Mech. Fab: Machine Shop		B&H	0	0.25 wks	\$0.00	\$0.00	\$0.00	\$800.00	\$0.00	\$0.00	\$0
64	2.1.10.1.14.5	power/energy sensor	SLAC	M&S	1	0 wks	\$0.00	\$7,000.00	\$0.00	\$7,000.00	\$420.00	\$1,113.00	\$8,533
		SLAC M&S Total		M&S	0	7,000	\$0.00	\$0.00	\$0.00	\$7,000.00	\$0.00	\$0.00	\$0
65	2.1.10.1.14.6	power/energy meter (2 channel)	SLAC	M&S	1	0 wks	\$0.00	\$17,000.00	\$0.00	\$17,000.00	\$1,020.00	\$2,703.00	\$20,72
		SLAC M&S Total		M&S	0	17,000	\$0.00	\$0.00	\$0.00	\$17,000.00	\$0.00	\$0.00	\$0
66	2.1.10.1.14.7	pinhole	SLAC	M&S	2	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$
		SLAC M&S Total		M&S	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$
67	2.1.10.1.14.8	dichroic splitters	SLAC	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$530.00	\$2,65
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$
8	2.1.10.1.14.9	Color filters - 780nm,390nm,260nm	SLAC	M&S	2	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$
		SLAC M&S Total		M&S	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$
69	1.10.1.14.10	Filter holders	SLAC	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$530.00	\$2,65
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$
70	1.10.1.14.11	Streak camera (uv)	SLAC	M&S	2	0 wks	\$0.00	\$300.00	\$0.00	\$300.00	\$18.00	\$79.50	\$39
		SLAC M&S Total		M&S	0	300	\$0.00	\$0.00	\$0.00	\$300.00	\$0.00	\$0.00	\$
71	1.1.10.1.14.12	Uv FROG	SLAC	M&S	2	0 wks	\$0.00	\$42,000.00	\$0.00	\$42,000.00	\$2,520.00	\$11,130.00	\$55,65
		SLAC M&S Total		M&S	0	42,000	\$0.00	\$0.00	\$0.00	\$42,000.00	\$0.00	\$0.00	\$
72	1.1.10.1.14.13	Reducer lenses	SLAC	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$265.00	\$1,32
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$
73	1.1.10.1.14.14	Reducer rail	SLAC	M&S	2	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$
		SLAC M&S Total		M&S	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$
74	1.1.10.1.14.15	Reducer lens mounts	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,21
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$
75	1.1.10.1.14.16	Planar mirrors/splitters	SLAC	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$265.00	\$1,32
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	9
76	1.1.10.1.14.17	Mirror mounts	SLAC	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$265.00	\$1,32
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$
77	.1.10.1.14.18	Half waveplate (uv)	SLAC	M&S	2	0 wks	\$0.00	\$4,000.00	\$0.00	\$4,000.00	\$240.00	\$1,060.00	\$5,30
		SLAC M&S Total		M&S	0	4,000	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$
78	1.1.10.1.14.19	Half waveplate mount	SLAC	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$265.00	\$1,32

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						LCLS_CD1_TEC	;						
ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.00
1279	:.1.10.1.14.20	Polarizing cube	SLAC	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$265.00	\$1,325.00
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.00
1280	1.10.1.14.21	Cube mount	SLAC	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$265.00	\$1,325.00
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.00
1281	:.1.10.1.14.22	CCD camera (vis & ir)	SLAC	M&S	2	0 wks	\$0.00	\$5,000.00	\$0.00	\$5,000.00	\$300.00	\$1,325.00	\$6,625.00
		SLAC M&S Total		M&S	0	5,000	\$0.00	\$0.00	\$0.00	\$5,000.00	\$0.00	\$0.00	\$0.00
1282	:.1.10.1.14.23	CCD camera (uv)	SLAC	M&S	2	0 wks	\$0.00	\$10,000.00	\$0.00	\$10,000.00	\$600.00	\$2,650.00	\$13,250.00
		SLAC M&S Total		M&S	0	10,000	\$0.00	\$0.00	\$0.00	\$10,000.00	\$0.00	\$0.00	\$0.00
1283	!.1.10.1.14.24	alignment irises	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219.00
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.00
1284	!.1.10.1.14.25	post collars	SLAC	M&S	1	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
		SLAC M&S Total		M&S	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
1285	:.1.10.1.14.26	Posts	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219.00
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.00
1286	!.1.10.1.14.27	Post Holders	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219.00
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.00
1287	!.1.10.1.14.28	Post Holder Bases	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219.00
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.00
1288	1.1.10.1.14.29	beam dumps	SLAC	M&S	1	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$180.00	\$477.00	\$3,657.00
		SLAC M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0.00
1289	1.1.10.1.14.30	beam covers	SLAC	B&H	2	0.4 wks	\$0.00	\$0.00	\$1,280.00	\$1,280.00	\$256.00	\$384.00	\$1,920.00
		SLAC Mech. Fab: Machine Shop		B&H	0	0.4 wks	\$0.00	\$0.00	\$0.00	\$1,280.00	\$0.00	\$0.00	\$0.00
1290	1.2.1.10.1.15	Cross-Correlation Detectors (uv & ir) and ir Probe beam	SLAC		0	8.8 wks	\$0.00	\$38,000.00	\$29,920.00	\$67,920.00	\$8,264.00	\$18,410.00	\$94,594.00
1291	.2.1.10.1.15.1	Scientist	SLAC	ED&I	2	4.8 wks	\$0.00	\$0.00	\$16,320.00	\$16,320.00	\$3,264.00	\$4,896.00	\$24,480.00
		SLAC Physicist - Senior Scientist		ED&I	0	4.8 wks	\$0.00	\$0.00	\$0.00	\$16,320.00	\$0.00	\$0.00	\$0.00
1292	.2.1.10.1.15.1	Scientist	SLAC	ED&I	2	4 wks	\$0.00	\$0.00	\$13,600.00	\$13,600.00	\$2,720.00	\$4,080.00	\$20,400.00
		SLAC Physicist -Scientist		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$13,600.00	\$0.00	\$0.00	\$0.00
1293	2.1.10.1.15.1	Kerr target	SLAC	M&S	2	0 wks	\$0.00	\$4,000.00	\$0.00	\$4,000.00	\$240.00	\$1,060.00	\$5,300.00
		SLAC M&S Total		M&S	0	4,000	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$0.00
1294	2.1.10.1.15.2	Kerr target mount	SLAC	M&S	2	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
		SLAC M&S Total		M&S	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
1295	2.1.10.1.15.3	Polarizers coated (uv)	SLAC	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$530.00	\$2,650.00
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.00
1296	2.1.10.1.15.4	Polarizer mounts	SLAC	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$530.00	\$2,650.00

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ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.0
1297	2.1.10.1.15.5	,	SLAC	M&S	2	0 wks	\$0.00	\$4,000.00	\$0.00	\$4,000.00	\$240.00	\$1,060.00	\$5,300.0
		SLAC M&S Total		M&S	0	4,000	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$0.0
1298	2.1.10.1.15.6	100 MHz oscilloscope	SLAC	M&S	2	0 wks	\$0.00	\$6,000.00	\$0.00	\$6,000.00	\$360.00	\$1,590.00	\$7,950.0
		SLAC M&S Total		M&S	0	6,000	\$0.00	\$0.00	\$0.00	\$6,000.00	\$0.00	\$0.00	\$0.0
1299	2.1.10.1.15.7	Translation stage with micrometer	SLAC	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$530.00	\$2,650.0
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.0
1300	2.1.10.1.15.8	Planar mirrors/splitters	SLAC	M&S	2	0 wks	\$0.00	\$6,000.00	\$0.00	\$6,000.00	\$360.00	\$1,590.00	\$7,950.0
		SLAC M&S Total		M&S	0	6,000	\$0.00	\$0.00	\$0.00	\$6,000.00	\$0.00	\$0.00	\$0.0
1301	2.1.10.1.15.9	Mirror mounts	SLAC	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$530.00	\$2,650.0
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.0
1302	!.1.10.1.15.10	Half waveplate	SLAC	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$265.00	\$1,325.0
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.0
303	<u> </u> .1.10.1.15.11	Waveplate mount	SLAC	M&S	2	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
		SLAC M&S Total		M&S	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
204	:.1.10.1.15.12		SLAC	M&S		0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219.0
1304	1.10.1.15.12	·	SLAC		'								
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.0
1305	1.1.10.1.15.13	,	SLAC	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$265.00	\$1,325.0
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.0
1306	1.1.10.1.15.14	Cylindrical lens mounts	SLAC	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$265.00	\$1,325.0
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.0
1307	1.1.10.1.15.15	Spherical lenses	SLAC	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$265.00	\$1,325.0
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.0
1308	1.1.10.1.15.16	Spherical lens mounts	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219.0
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.0
1309	!.1.10.1.15.17	post collars	SLAC	M&S	1	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
		SLAC M&S Total		M&S	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
1310	1.1.10.1.15.18	Posts	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219.0
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.0
1311	1.1.10.1.15.19	Post Holders	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219.0
		SLAC M&S Total	02/10	M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.0
212	1.1.10.1.15.20		SLAC	M&S		0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219.0
1312	1. 10. 1. 15.20		SLAC										
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.0
1313	1.1.10.1.15.21	, ,	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219.0
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.0

ID 1314	CWBS 1.2.1.10.1.16	Task Name Optical Transport	OBS SLAC	PHASE	Risk	Units 4.2 wks	PED (Direct) \$0.00	M&S (Direct) \$47,000.00	Labor (Direct) \$14,280.00	Direct Cost \$61,280.00	Overhead Cost \$5,676.00	Contingency Cost \$15,785.00	Total Cost \$82,741.0
	2.1.10.1.16.1	Scientist	SLAC	ED&I	2	0.2 wks	\$0.00	\$0.00	\$680.00	\$680.00	\$136.00	\$204.00	\$1,020.0
313	2.1.10.1.10.1		SLAC										
		SLAC Physicist - Senior Scientist		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$680.00	\$0.00	\$0.00	\$0.0
316	2.1.10.1.16.1	Scientist	SLAC	ED&I	2	4 wks	\$0.00	\$0.00	\$13,600.00	\$13,600.00	\$2,720.00	\$4,080.00	\$20,400.0
		SLAC Physicist -Scientist		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$13,600.00	\$0.00	\$0.00	\$0.0
317	2.1.10.1.16.1	Spherical Lenses (uv)	SLAC	M&S	1	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$318.00	\$2,438.0
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.0
318	2.1.10.1.16.2	Transport tube windows	SLAC	M&S	1	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$180.00	\$477.00	\$3,657.0
		SLAC M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0.0
319	2.1.10.1.16.3	Diode vacuum pump	SLAC	M&S	2	0 wks	\$0.00	\$6,000.00	\$0.00	\$6,000.00	\$360.00	\$1,590.00	\$7,950.0
		SLAC M&S Total		M&S	0	6,000	\$0.00	\$0.00	\$0.00	\$6,000.00	\$0.00	\$0.00	\$0.0
320	2.1.10.1.16.4	lon pump controller and cable	SLAC	M&S	2	0 wks	\$0.00	\$6,000.00	\$0.00	\$6,000.00	\$360.00	\$1,590.00	\$7,950.0
		SLAC M&S Total		M&S	0	6,000	\$0.00	\$0.00	\$0.00	\$6,000.00	\$0.00	\$0.00	\$0.0
321	2.1.10.1.16.5		SLAC	M&S	2	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
		SLAC M&S Total		M&S	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
000	0.4.40.4.40.0		01.40										
322	2.1.10.1.16.6	.	SLAC	M&S	2	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
		SLAC M&S Total		M&S	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
323	2.1.10.1.16.7	Installation of transport tube	SLAC	M&S	1	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
		SLAC M&S Total		M&S	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
324	2.1.10.1.16.8	Spherical lenses - (green)	SLAC	M&S	1	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$318.00	\$2,438.0
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.0
325	2.1.10.1.16.9	Spherical lenses (ir)	SLAC	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$530.00	\$2,650.0
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.0
326	!.1.10.1.16.10	Spherical lens mounts	SLAC	M&S	2	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$180.00	\$795.00	\$3,975.0
		SLAC M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0.0
327	1.1.10.1.16.11	Planar mirrors/splitters	SLAC	M&S	2	0 wks	\$0.00	\$5,000.00	\$0.00	\$5,000.00	\$300.00	\$1,325.00	\$6,625.0
		SLAC M&S Total		M&S	0	5,000	\$0.00	\$0.00	\$0.00	\$5,000.00	\$0.00	\$0.00	\$0.0
220	1.1.10.1.16.12		SLAC	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$530.00	\$2,650.0
320	1.10.1.16.12		SLAC										
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.0
329	1.1.10.1.16.13	power/energy sensor	SLAC	M&S	2	0 wks	\$0.00	\$4,000.00	\$0.00	\$4,000.00	\$240.00	\$1,060.00	\$5,300.0
		SLAC M&S Total		M&S	0	4,000	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$0.0
330	1.1.10.1.16.14	power/energy meter (2 ch)	SLAC	M&S	2	0 wks	\$0.00	\$8,000.00	\$0.00	\$8,000.00	\$480.00	\$2,120.00	\$10,600.0
		SLAC M&S Total		M&S	0	8,000	\$0.00	\$0.00	\$0.00	\$8,000.00	\$0.00	\$0.00	\$0.0
331	1.1.10.1.16.15	Posts	SLAC	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$265.00	\$1,325.0
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.0

I CI	S	CD1	TEC

ID		Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
332	1.1.10.1.16.16	Post Holders	SLAC	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$265.00	\$1,325.0
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.0
333	1.1.10.1.16.17	Post Holder Bases	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219.0
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.0
334	1.1.10.1.16.18	alignment irises	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219.
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.0
335	1.1.10.1.16.19	post collars	SLAC	M&S	1	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
		SLAC M&S Total		M&S	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
336			SLAC	M&S	0	0 wks	\$0.00	\$1.00	\$0.00	\$1.00	\$0.06	\$0.00	\$1.
		SLAC M&S Total		M&S	0	1	\$0.00	\$0.00	\$0.00	\$1.00	\$0.00	\$0.00	\$0.
337			SLAC	M&S	0	0 wks	\$0.00	\$1.00	\$0.00	\$1.00	\$0.06	\$0.00	\$1.
		SLAC M&S Total		M&S	0	1	\$0.00	\$0.00	\$0.00	\$1.00	\$0.00	\$0.00	\$0.
338	1.2.1.10.1.17	Imaging onto Photocathode	SLAC		0	9.2 wks	\$0.00	\$51,000.00	\$30,999.76	\$81,999.76	\$9,259.95	\$21,648.93	\$112,908.6
339	2.1.10.1.17.1	Scientist	SLAC	ED&I	2	5 wks	\$0.00	\$0.00	\$17,000.00	\$17,000.00	\$3,400.00	\$5,100.00	\$25,500.
		SLAC Physicist -Scientist		ED&I	0	5 wks	\$0.00	\$0.00	\$0.00	\$17,000.00	\$0.00	\$0.00	\$0.
340	2.1.10.1.17.1	Scientist	SLAC	ED&I	2	4 wks	\$0.00	\$0.00	\$13,600.00	\$13,600.00	\$2,720.00	\$4,080.00	\$20,400
		SLAC Physicist -Scientist		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$13,600.00	\$0.00	\$0.00	\$0.
341	2.1.10.1.17.1	Grating, 260 nm	SLAC	M&S	2	0 wks	\$0.00	\$4,000.00	\$0.00	\$4,000.00	\$240.00	\$1,060.00	\$5,300.
		SLAC M&S Total		M&S	0	4,000	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$0.
342	2.1.10.1.17.2	grating mount	SLAC	B&H	2	0.2 wks	\$0.00	\$0.00	\$399.76	\$399.76	\$79.95	\$119.93	\$599.
		SLAC Mech. Fab: Assembly Tech		B&H	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$399.76	\$0.00	\$0.00	\$0.
343	2.1.10.1.17.2	grating mount	SLAC	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$265.00	\$1,325.
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.
344	2.1.10.1.17.3	Spherical Lenses	SLAC	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$265.00	\$1,325.
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.
345	2.1.10.1.17.4	spherical lens mount	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219.
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.
346	2.1.10.1.17.5	Planars mirrors/splitters	SLAC	M&S	2	0 wks	\$0.00	\$6,000.00	\$0.00	\$6,000.00	\$360.00	\$1,590.00	\$7,950.
		SLAC M&S Total		M&S	0	6,000	\$0.00	\$0.00	\$0.00	\$6,000.00	\$0.00	\$0.00	\$0.
347	2.1.10.1.17.6	Trimming aperture	SLAC	M&S	1	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
		SLAC M&S Total		M&S	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
348	2.1.10.1.17.7	Mirror mounts	SLAC	M&S	1	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$318.00	\$2,438
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.
349	2.1.10.1.17.8	Alignment irises on posts	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.

I CI	S	CD1	TEC

ID		Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
350	2.1.10.1.17.9	Cylindrical lens	SLAC	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$265.00	\$1,325.
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.0
351	1.1.10.1.17.10	Cylindrical lens mount	SLAC	M&S	2	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
		SLAC M&S Total		M&S	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
352	1.1.10.1.17.11	CCD camera (uv)	SLAC	M&S	2	0 wks	\$0.00	\$5,000.00	\$0.00	\$5,000.00	\$300.00	\$1,325.00	\$6,625
		SLAC M&S Total		M&S	0	5,000	\$0.00	\$0.00	\$0.00	\$5,000.00	\$0.00	\$0.00	\$0.
353	1.1.10.1.17.12	power/energy sensor	SLAC	M&S	1	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$318.00	\$2,438
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.
354	1.1.10.1.17.13	power/energy meter (2 ch)	SLAC	M&S	1	0 wks	\$0.00	\$4,000.00	\$0.00	\$4,000.00	\$240.00	\$636.00	\$4,876
		SLAC M&S Total		M&S	0	4,000	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$0.
355	1.1.10.1.17.14	Posts	SLAC	M&S	1	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
		SLAC M&S Total		M&S	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
356	1.1.10.1.17.15	Post Holders	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0
357	<u>.</u> .1.10.1.17.16	Post Holder Bases	SLAC	M&S	1	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
		SLAC M&S Total		M&S	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
58	1.1.10.1.17.17	uv FROG	SLAC	M&S	2	0 wks	\$0.00	\$21,000.00	\$0.00	\$21,000.00	\$1,260.00	\$5,565.00	\$27,825
		SLAC M&S Total		M&S	0	21,000	\$0.00	\$0.00	\$0.00	\$21,000.00	\$0.00	\$0.00	\$0
359	1.1.10.1.17.18	post collars	SLAC	M&S	1	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
		SLAC M&S Total		M&S	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
360	1.1.10.1.17.19	beam dumps	SLAC	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$265.00	\$1,325
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0
361	1.2.1.10.1.18	Laser Support Systems & Miscellaneous Items			0	0 wks	\$0.00	\$154,000.00	\$0.00	\$154,000.00	\$9,240.00	\$40,386.00	\$203,626
362	2.1.10.1.18.1	Scientist	SLAC		2	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
363	2.1.10.1.18.1	Scientist	SLAC		2	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
364	2.1.10.1.18.1	Optical tables for clean room	SLAC	M&S	2	0 wks	\$0.00	\$42,000.00	\$0.00	\$42,000.00	\$2,520.00	\$11,130.00	\$55,650
		SLAC M&S Total		M&S	0	42,000	\$0.00	\$0.00	\$0.00	\$42,000.00	\$0.00	\$0.00	\$0
365	2.1.10.1.18.2	Table enclosures	SLAC	M&S	2	0 wks	\$0.00	\$5,000.00	\$0.00	\$5,000.00	\$300.00	\$1,325.00	\$6,625
		SLAC M&S Total		M&S	0	5,000	\$0.00	\$0.00	\$0.00	\$5,000.00	\$0.00	\$0.00	\$0
366	2.1.10.1.18.3	Optical table next to the RF gun	SLAC	M&S	2	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$180.00	\$795.00	\$3,975
		SLAC M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0
867	2.1.10.1.18.4	Support and enclosure for breadboard	SLAC	M&S	2	0 wks	\$0.00	\$6,000.00	\$0.00	\$6,000.00	\$360.00	\$1,590.00	\$7,950
		SLAC M&S Total		M&S	0	6,000	\$0.00	\$0.00	\$0.00	\$6,000.00	\$0.00	\$0.00	\$0
368	2.1.10.1.18.5	Racks and other furniture	SLAC	M&S	2	0 wks	\$0.00	\$5,000.00	\$0.00	\$5,000.00	\$300.00	\$1,325.00	\$6,625
		SLAC M&S Total		M&S	0	5,000	\$0.00	\$0.00	\$0.00	\$5,000.00	\$0.00	\$0.00	\$0

						LCLS_CD1_TEC							
ID		Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
1369	2.1.10.1.18.6	Elevated instrumentation shelves (on optical tables)	SLAC	M&S	2	0 wks	\$0.00	\$8,000.00	\$0.00	\$8,000.00	\$480.00	\$2,120.00	\$10,600.0
		SLAC M&S Total		M&S	0	8,000	\$0.00	\$0.00	\$0.00	\$8,000.00	\$0.00	\$0.00	\$0.0
1370	2.1.10.1.18.7	Vidmar cabinets (Stanley)	SLAC	M&S	2	0 wks	\$0.00	\$12,000.00	\$0.00	\$12,000.00	\$720.00	\$3,180.00	\$15,900.0
		SLAC M&S Total		M&S	0	12,000	\$0.00	\$0.00	\$0.00	\$12,000.00	\$0.00	\$0.00	\$0.0
371	2.1.10.1.18.8	tool set and box	SLAC	M&S	2	0 wks	\$0.00	\$10,000.00	\$0.00	\$10,000.00	\$600.00	\$2,650.00	\$13,250.0
		SLAC M&S Total		M&S	0	10,000	\$0.00	\$0.00	\$0.00	\$10,000.00	\$0.00	\$0.00	\$0.0
372	2.1.10.1.18.9	ir viewers	SLAC	M&S	1	0 wks	\$0.00	\$4,000.00	\$0.00	\$4,000.00	\$240.00	\$636.00	\$4,876.
		SLAC M&S Total		M&S	0	4,000	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$0.
373	:.1.10.1.18.10	microscope (stereo)	SLAC	M&S	2	0 wks	\$0.00	\$38,000.00	\$0.00	\$38,000.00	\$2,280.00	\$10,070.00	\$50,350.
		SLAC M&S Total		M&S	0	38,000	\$0.00	\$0.00	\$0.00	\$38,000.00	\$0.00	\$0.00	\$0.
374	:.1.10.1.18.11	ir sensor cards	SLAC	M&S	2	0 wks	\$0.00	\$6,000.00	\$0.00	\$6,000.00	\$360.00	\$1,590.00	\$7,950.0
		SLAC M&S Total		M&S	0	6,000	\$0.00	\$0.00	\$0.00	\$6,000.00	\$0.00	\$0.00	\$0.0
375	1.10.1.18.12	latex gloves & finger cots	SLAC	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$265.00	\$1,325.
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.
376	1.1.10.1.18.13	microdusters	SLAC	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$265.00	\$1,325
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.
377	1.1.10.1.18.14	solvents	SLAC	M&S	2	0 wks	\$0.00	\$12,000.00	\$0.00	\$12,000.00	\$720.00	\$3,180.00	\$15,900
		SLAC M&S Total		M&S	0	12,000	\$0.00	\$0.00	\$0.00	\$12,000.00	\$0.00	\$0.00	\$0.
378	1.10.1.18.15	clean room attire (hats, smocks, booties)	SLAC	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$265.00	\$1,325
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.
379	1.1.10.1.18.16	uv diagnostic paper & lens tissue	SLAC	M&S	2	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
		SLAC M&S Total		M&S	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
380	:.1.10.1.18.17	burn paper	SLAC	M&S	2	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
		SLAC M&S Total		M&S	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
381	1.2.1.10.2	Alignment Laser			0	29 wks	\$0.00	\$65,000.00	\$91,995.20	\$156,995.20	\$22,299.04	\$0.00	\$179,294.
382	1.2.1.10.2.1	Alignment laser parts	SLAC	ED&I	0	25 wks	\$0.00	\$0.00	\$84,000.00	\$84,000.00	\$16,800.00	\$0.00	\$100,800.
		SLAC Mechanical Engineer		ED&I	0	25 wks	\$0.00	\$0.00	\$0.00	\$84,000.00	\$0.00	\$0.00	\$0.
383	1.2.1.10.2.2	Alignment laser assembly	SLAC	B&H	0	4 wks	\$0.00	\$0.00	\$7,995.20	\$7,995.20	\$1,599.04	\$0.00	\$9,594.
		SLAC Mech. Fab: Assembly Tech		B&H	0	4 wks	\$0.00	\$0.00	\$0.00	\$7,995.20	\$0.00	\$0.00	\$0.
384	1.2.1.10.2.2	Alignment laser assembly	SLAC	M&S	0	0 wks	\$0.00	\$65,000.00	\$0.00	\$65,000.00	\$3,900.00	\$0.00	\$68,900
		SLAC M&S Total		M&S	0	65,000	\$0.00	\$0.00	\$0.00	\$65,000.00	\$0.00	\$0.00	\$0.
385	1.2.2	ACCELERATOR			0	3,735.96 wks	\$5,248,493.58	\$5,266,600.00	\$5,272,272.68	\$15,787,366.26	\$2,390,659.94	\$4,874,082.82	\$23,052,109.
386	1.2.2.1	PED			0	1,738.3 wks	\$5,248,493.58	\$0.00	\$0.00	\$5,248,493.58	\$1,020,158.16	\$1,953,582.01	\$8,222,233.
387	1.2.2.1.1	System Integration			0	588 wks	\$2,064,680.00	\$0.00	\$0.00	\$2,064,680.00	\$395,436.00	\$723,523.60	\$3,183,639.
388	1.2.2.1.1.4	Computer Equipment	SLAC	M&S	4	0 wks	\$25,000.00	\$0.00	\$0.00	\$25,000.00	\$1,500.00	\$13,250.00	\$39,750.

ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		SLAC M&S Total		M&S	0	25,000	\$0.00	\$0.00	\$0.00	\$25,000.00	\$0.00	\$0.00	\$0.0
389	1.2.2.1.1.4	Travel Budget	SLAC	M&S	4	0 wks	\$100,000.00	\$0.00	\$0.00	\$100,000.00	\$6,000.00	\$53,000.00	\$159,000.
		SLAC M&S Total		M&S	0	100,000	\$0.00	\$0.00	\$0.00	\$100,000.00	\$0.00	\$0.00	\$0.
390	1.2.2.1.1.4	Physics	SLAC	ED&I	2	356 wks	\$1,210,400.00	\$0.00	\$0.00	\$1,210,400.00	\$242,080.00	\$363,120.00	\$1,815,600.
		SLAC Physicist -Scientist		ED&I	0	356 wks	\$0.00	\$0.00	\$0.00	\$1,210,400.00	\$0.00	\$0.00	\$0.
391	1.2.2.1.1.4	Engineering	SLAC	ED&I	3	188 wks	\$628,080.00	\$0.00	\$0.00	\$628,080.00	\$125,616.00	\$263,793.60	\$1,017,489
		S LAC Electrical Engineer		ED&I	0	10 wks	\$0.00	\$0.00	\$0.00	\$30,000.00	\$0.00	\$0.00	\$0
		SLAC Mechanical Engineer		ED&I	0	178 wks	\$0.00	\$0.00	\$0.00	\$598,080.00	\$0.00	\$0.00	\$0
392	1.2.2.1.1.5	Drafting	SLAC	ED&I	2	44 wks	\$101,200.00	\$0.00	\$0.00	\$101,200.00	\$20,240.00	\$30,360.00	\$151,800
		SLAC Mech Drafting/Design		ED&I	0	44 wks	\$0.00	\$0.00	\$0.00	\$101,200.00	\$0.00	\$0.00	\$0
393	1.2.2.1.2	Accelerator Control System			0	100.2 wks	\$261,764.80	\$0.00	\$0.00	\$261,764.80	\$52,352.96	\$157,058.88	\$471,176
94	1.2.2.1.2.1	Hardware Engineer / System Integration	SLAC	ED&I	4	18.2 wks	\$54,600.00	\$0.00	\$0.00	\$54,600.00	\$10,920.00	\$32,760.00	\$98,280
		S LAC Electrical Engineer		ED&I	0	18.2 wks	\$0.00	\$0.00	\$0.00	\$54,600.00	\$0.00	\$0.00	\$0
95	1.2.2.1.2.2	-	SLAC	ED&I	4	25 wks	\$63,160.00	\$0.00	\$0.00	\$63,160.00	\$12,632.00	\$37,896.00	\$113,688
	1.2.2.1.2.2		SEAC		'								
		SLAC Controls: Programmer		ED&I	0	25 wks	\$0.00	\$0.00	\$0.00	\$63,160.00	\$0.00	\$0.00	\$0
96	1.2.2.1.2.3	, and the second	SLAC	ED&I	4	10 wks	\$25,264.00	\$0.00	\$0.00	\$25,264.00	\$5,052.80	\$15,158.40	\$45,475
		SLAC Controls: Programmer		ED&I	0	10 wks	\$0.00	\$0.00	\$0.00	\$25,264.00	\$0.00	\$0.00	\$0
97	1.2.2.1.2.4	Software Engineer - Interfaces	SLAC	ED&I	4	35 wks	\$88,424.00	\$0.00	\$0.00	\$88,424.00	\$17,684.80	\$53,054.40	\$159,163
		SLAC Controls: Programmer		ED&I	0	35 wks	\$0.00	\$0.00	\$0.00	\$88,424.00	\$0.00	\$0.00	\$0
398	1.2.2.1.2.5	Programmer - Database comp. & Comm.	SLAC	ED&I	4	12 wks	\$30,316.80	\$0.00	\$0.00	\$30,316.80	\$6,063.36	\$18,190.08	\$54,570
		SLAC Controls: Programmer		ED&I	0	12 wks	\$0.00	\$0.00	\$0.00	\$30,316.80	\$0.00	\$0.00	\$0
399	1.2.2.1.3	Vacuum System PED			0	158.4 wks	\$421,665.60	\$0.00	\$0.00	\$421,665.60	\$84,333.12	\$175,078.56	\$681,077
100	1.2.2.1.3.1	Vacuum System Engineering	SLAC	ED&I	3	53.4 wks	\$179,424.00	\$0.00	\$0.00	\$179,424.00	\$35,884.80	\$75,358.08	\$290,666
		SLAC Mechanical Engineer		ED&I	0	53.4 wks	\$0.00	\$0.00	\$0.00	\$179,424.00	\$0.00	\$0.00	\$0
101	1.2.2.1.3.2	Vacuum System Design	SLAC	ED&I	3	40 wks	\$92,000.00	\$0.00	\$0.00	\$92,000.00	\$18,400.00	\$38,640.00	\$149,040
		SLAC Mech Drafting/Design		ED&I	0	40 wks	\$0.00	\$0.00	\$0.00	\$92,000.00	\$0.00	\$0.00	\$0
102	1.2.2.1.3.3		SLAC	ED&I	3	10 wks	\$23,000.00	\$0.00	\$0.00	\$23,000.00	\$4,600.00	\$9,660.00	\$37,260
		SLAC Mech Drafting/Design		ED&I	0	10 wks	\$0.00	\$0.00	\$0.00	\$23,000.00	\$0.00	\$0.00	\$0
103	1.2.2.1.3.4		SLAC	ED&I	3	48 wks	\$110,400.00	\$0.00	\$0.00	\$110,400.00	\$22,080.00	\$46,368.00	\$178,848
.03	1.2.2.1.3.4		SEAC										
		SLAC Mech Drafting/Design		ED&I	0	48 wks	\$0.00	\$0.00	\$0.00	\$110,400.00	\$0.00	\$0.00	\$0
04	1.2.2.1.3.5		SLAC	ED&I	2	3 wks	\$8,841.60	\$0.00	\$0.00	\$8,841.60	\$1,768.32		\$13,26
		SLAC Controls: Engineer		ED&I	0	3 wks	\$0.00	\$0.00	\$0.00	\$8,841.60	\$0.00	\$0.00	\$0
105	1.2.2.1.3.6	Controls Coordination and Documentation	SLAC	ED&I	2	4 wks	\$8,000.00	\$0.00	\$0.00	\$8,000.00	\$1,600.00	\$2,400.00	\$12,000
		SLAC Controls: Coordinator Assoc.		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$8,000.00	\$0.00	\$0.00	\$0
106	1.2.2.1.4	BC1 Articulation Vaccum			0	30 wks	\$79,600.00	\$0.00	\$0.00	\$79,600.00	\$15.920.00	\$33,432.00	\$128,952

ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
407	1.2.2.1.4.1	Articulation Vac Engineering	SLAC	ED&I	3	10 wks	\$33,600.00	\$0.00	\$0.00	\$33,600.00	\$6,720.00	\$14,112.00	\$54,432.0
		SLAC Mechanical Engineer		ED&I	0	10 wks	\$0.00	\$0.00	\$0.00	\$33,600.00	\$0.00	\$0.00	\$0.0
408	1.2.2.1.4.2	Articulation Vac Design	SLAC	ED&I	3	7.5 wks	\$17,250.00	\$0.00	\$0.00	\$17,250.00	\$3,450.00	\$7,245.00	\$27,945.0
\dashv		SLAC Mech Drafting/Design		ED&I	0	7.5 wks	\$0.00	\$0.00	\$0.00	\$17,250.00	\$0.00	\$0.00	\$0.0
409	1.2.2.1.4.3	Articulation Vac Drafting	SLAC	ED&I	3	12.5 wks	\$28,750.00	\$0.00	\$0.00	\$28,750.00	\$5,750.00	\$12,075.00	\$46,575.
		SLAC Mech Drafting/Design		ED&I	0	12.5 wks	\$0.00	\$0.00	\$0.00	\$28,750.00	\$0.00	\$0.00	\$0.
110	1.2.2.1.5	BC2 Articulation Vacuum			0	30 wks	\$79,600.00	\$0.00	\$0.00	\$79,600.00	\$15,920.00	\$33,432.00	\$128,952.
111	1.2.2.1.5.1	Articulation Vac Engineering	SLAC	ED&I	3	10 wks	\$33,600.00	\$0.00	\$0.00	\$33,600.00	\$6,720.00	\$14,112.00	\$54,432
\dashv		SLAC Mechanical Engineer		ED&I	0	10 wks	\$0.00	\$0.00	\$0.00	\$33,600.00	\$0.00	\$0.00	\$0.
12	1.2.2.1.5.2	Articulation Vac Design	SLAC	ED&I	3	7.5 wks	\$17,250.00	\$0.00	\$0.00	\$17,250.00	\$3,450.00	\$7,245.00	\$27,945
-		SLAC Mech Drafting/Design		ED&I	0	7.5 wks	\$0.00	\$0.00	\$0.00	\$17,250.00	\$0.00	\$0.00	\$0
113	1.2.2.1.5.3	Articulation Vac Drafting	SLAC	ED&I	3	12.5 wks	\$28,750.00	\$0.00	\$0.00	\$28,750.00	\$5,750.00	\$12,075.00	\$46,575
\dashv		SLAC Mech Drafting/Design		ED&I	0	12.5 wks	\$0.00	\$0.00	\$0.00	\$28,750.00	\$0.00	\$0.00	\$0
114	1.2.2.1.6	Dumpline Vacuum			0	80 wks	\$226,400.00	\$0.00	\$0.00	\$226,400.00	\$45,280.00	\$95,088.00	\$366,768
15	1.2.2.1.6.1	Dumpline Vac Engineering	SLAC	ED&I	3	40 wks	\$134,400.00	\$0.00	\$0.00	\$134,400.00	\$26,880.00	\$56,448.00	\$217,728
\dashv		SLAC Mechanical Engineer		ED&I	0	40 wks	\$0.00	\$0.00	\$0.00	\$134,400.00	\$0.00	\$0.00	\$0
16	1.2.2.1.6.2	Dumpline Vac Design	SLAC	ED&I	3	20 wks	\$46,000.00	\$0.00	\$0.00	\$46,000.00	\$9,200.00	\$19,320.00	\$74,520
_		SLAC Mech Drafting/Design		ED&I	0	20 wks	\$0.00	\$0.00	\$0.00	\$46,000.00	\$0.00	\$0.00	\$0
117	1.2.2.1.6.3	Dumpline Vac Drafting	SLAC	ED&I	3	20 wks	\$46,000.00	\$0.00	\$0.00	\$46,000.00	\$9,200.00	\$19,320.00	\$74,520
		SLAC Mech Drafting/Design		ED&I	0	20 wks	\$0.00	\$0.00	\$0.00	\$46,000.00	\$0.00	\$0.00	\$0
118	1.2.2.1.7	Reserved			0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
119	1.2.2.1.7.1	Area layouts/raceways/supports	SLAC		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
120	1.2.2.1.7.2	System dwg (EI,WD,Profile,CC&contrac.)	SLAC		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
121	1.2.2.1.8	PPS PED	02.10		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
122	1.2.2.1.8.1	PPS Design Engineering	SLAC		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
123	1.2.2.1.8.2	PPS Design Engineering PPS Design Drafting	SLAC		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
24	1.2.2.1.9	BC1 Articulation Mechanical	SLAC		0	62 wks	\$159,560.00	\$0.00	\$0.00	\$159,560.00	\$31,912.00	\$67,015.20	\$258,487
125	1.2.2.1.9		SLAC	ED&I		16 wks	\$53,760.00	\$0.00	\$0.00	\$53,760.00	\$10,752.00	\$22,579.20	\$87,091
125	1.2.2.1.9.1	Articulation Engineering	SLAC		3								
		SLAC Mechanical Engineer		ED&I		16 wks	\$0.00	\$0.00	\$0.00	\$53,760.00	\$0.00	\$0.00	\$0
26	1.2.2.1.9.2	Articulation Design	SLAC	ED&I	3	20 wks	\$46,000.00	\$0.00	\$0.00	\$46,000.00	\$9,200.00	\$19,320.00	\$74,520
		SLAC Mech Drafting/Design		ED&I	0	20 wks	\$0.00	\$0.00	\$0.00	\$46,000.00	\$0.00	\$0.00	\$0
127	1.2.2.1.9.3	Articulation Drafting	SLAC	ED&I	3	26 wks	\$59,800.00	\$0.00	\$0.00	\$59,800.00	\$11,960.00	\$25,116.00	\$96,876
		SLAC Mech Drafting/Design		ED&I	0	26 wks	\$0.00	\$0.00	\$0.00	\$59,800.00	\$0.00	\$0.00	\$0
128	1.2.2.1.10	BC2 Articulation Mechanical			0	62 wks	\$159,560.00	\$0.00	\$0.00	\$159,560.00	\$31,912.00	\$67,015.20	\$258,487
429	1.2.2.1.10.1	Articulation Engineering	SLAC	ED&I	3	16 wks	\$53,760.00	\$0.00	\$0.00	\$53,760.00	\$10,752.00	\$22,579.20	\$87,091

ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		SLAC Mechanical Engineer		ED&I	0	16 wks	\$0.00	\$0.00	\$0.00	\$53,760.00	\$0.00	\$0.00	\$0.0
430	1.2.2.1.10.2	Articulation Design	SLAC	ED&I	3	20 wks	\$46,000.00	\$0.00	\$0.00	\$46,000.00	\$9,200.00	\$19,320.00	\$74,520.0
		SLAC Mech Drafting/Design		ED&I	0	20 wks	\$0.00	\$0.00	\$0.00	\$46,000.00	\$0.00	\$0.00	\$0.0
431	1.2.2.1.10.3	Articulation Drafting	SLAC	ED&I	3	26 wks	\$59,800.00	\$0.00	\$0.00	\$59,800.00	\$11,960.00	\$25,116.00	\$96,876.0
		SLAC Mech Drafting/Design		ED&I	0	26 wks	\$0.00	\$0.00	\$0.00	\$59,800.00	\$0.00	\$0.00	\$0.0
432	1.2.2.1.11	Bend Magnets - 5D7.1 (BC1 magnets)			0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
433	1.2.2.1.11.1	Magnet Design	SLAC		4	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
434	1.2.2.1.11.2	Magnet Drafting	SLAC		4	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
435	1.2.2.1.11.3	Magnet Support Design	SLAC		4	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
436	1.2.2.1.11.4	Magnet Support Drafting	SLAC		4	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
437	1.2.2.1.12	Bend Magnet 1D30.5			0	19 wks	\$51,120.00	\$0.00	\$0.00	\$51,120.00	\$10,224.00	\$15,336.00	\$76,680.0
438	1.2.2.1.12.1	Magnetic Modeling	SLAC	ED&I	2	2 wks	\$6,720.00	\$0.00	\$0.00	\$6,720.00	\$1,344.00	\$2,016.00	\$10,080.0
		SLAC Mechanical Engineer		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$6,720.00	\$0.00	\$0.00	\$0.0
439	1.2.2.1.12.2	Magnet Design	SLAC	ED&I	2	3 wks	\$10,080.00	\$0.00	\$0.00	\$10,080.00	\$2,016.00	\$3,024.00	\$15,120.0
		SLAC AD: Mech/Vacuum Engineer		ED&I	0	3 wks	\$0.00	\$0.00	\$0.00	\$10,080.00	\$0.00	\$0.00	\$0.0
440	1.2.2.1.12.3	Magnet Drafting	SLAC	ED&I	2	8 wks	\$18,400.00	\$0.00	\$0.00	\$18,400.00	\$3,680.00	\$5,520.00	\$27,600.
		SLAC Mech Drafting/Design		ED&I	0	8 wks	\$0.00	\$0.00	\$0.00	\$18,400.00	\$0.00	\$0.00	\$0.
441	1.2.2.1.12.4	Magnet Support Design	SLAC	ED&I	2	2 wks	\$6,720.00	\$0.00	\$0.00	\$6,720.00	\$1,344.00	\$2,016.00	\$10,080.
		SLAC Mechanical Engineer		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$6,720.00	\$0.00	\$0.00	\$0.0
442	1.2.2.1.12.5	Magnet Support Drafting	SLAC	ED&I	2	4 wks	\$9,200.00	\$0.00	\$0.00	\$9,200.00	\$1,840.00	\$2,760.00	\$13,800.
		SLAC Mech Drafting/Design		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$9,200.00	\$0.00	\$0.00	\$0.
443	1.2.2.1.13	Bend Magnet 4D102.36T			2	5 wks	\$12,560.00	\$0.00	\$0.00	\$12,560.00	\$2,512.00	\$3,768.00	\$18,840.0
444	1.2.2.1.13.1	Magnetic Modeling	SLAC	ED&I	2	0.2 wks	\$672.00	\$0.00	\$0.00	\$672.00	\$134.40	\$201.60	\$1,008.
		SLAC Mechanical Engineer		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$672.00	\$0.00	\$0.00	\$0.0
445	1.2.2.1.13.2	Magnet Design	SLAC	ED&I	2	0.4 wks	\$1,344.00	\$0.00	\$0.00	\$1,344.00	\$268.80	\$403.20	\$2,016.
		SLAC AD: Mech/Vacuum Engineer		ED&I	0	0.4 wks	\$0.00	\$0.00	\$0.00	\$1,344.00	\$0.00	\$0.00	\$0.
446	1.2.2.1.13.3		SLAC	ED&I	2	2 wks	\$4,600.00	\$0.00	\$0.00	\$4,600.00	\$920.00	\$1,380.00	\$6,900.
		SLAC Mech Drafting/Design		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,600.00	\$0.00	\$0.00	\$0.
447	1.2.2.1.13.4		SLAC	ED&I	2	0.4 wks	\$1,344.00	\$0.00	\$0.00	\$1,344.00	\$268.80	\$403.20	\$2,016.
		SLAC Mechanical Engineer		ED&I	0	0.4 wks	\$0.00	\$0.00	\$0.00	\$1,344.00	\$0.00	\$0.00	\$0.
448	1.2.2.1.13.5	-	SLAC	ED&I	2	2 wks	\$4,600.00	\$0.00	\$0.00	\$4,600.00	\$920.00	\$1,380.00	\$6,900
++0	1.2.2.1.13.5	SLAC Mech Drafting/Design	SLAC	ED&I	0	2 wks	\$4,600.00	\$0.00	\$0.00	\$4,600.00	\$0.00	\$0.00	\$0,900.
449	422444			ED&I		2 wks			\$0.00				
	1.2.2.1.14	Bend Magnet (VB)	21.15	FR?	0		\$51,120.00	\$0.00	,,,,,	\$51,120.00	\$10,224.00	\$15,336.00	\$76,680.
450	1.2.2.1.14.1	Magnetic Modeling	SLAC	ED&I	2	2 wks	\$6,720.00	\$0.00	\$0.00	\$6,720.00	\$1,344.00	\$2,016.00	\$10,080.
		SLAC Mechanical Engineer		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$6,720.00	\$0.00	\$0.00	\$0.0

ID		Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
451	1.2.2.1.14.2	Magnet Design	SLAC	ED&I	2	3 wks	\$10,080.00	\$0.00	\$0.00	\$10,080.00	\$2,016.00	\$3,024.00	\$15,120.0
		SLAC AD: Mech/Vacuum Engineer		ED&I	0	3 wks	\$0.00	\$0.00	\$0.00	\$10,080.00	\$0.00	\$0.00	\$0.0
452	1.2.2.1.14.3	Magnet Drafting	SLAC	ED&I	2	8 wks	\$18,400.00	\$0.00	\$0.00	\$18,400.00	\$3,680.00	\$5,520.00	\$27,600.0
		SLAC Mech Drafting/Design		ED&I	0	8 wks	\$0.00	\$0.00	\$0.00	\$18,400.00	\$0.00	\$0.00	\$0.0
453	1.2.2.1.14.4	Magnet Support Design	SLAC	ED&I	2	2 wks	\$6,720.00	\$0.00	\$0.00	\$6,720.00	\$1,344.00	\$2,016.00	\$10,080.
		SLAC Mechanical Engineer		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$6,720.00	\$0.00	\$0.00	\$0.
454	1.2.2.1.14.5	Magnet Support Drafting	SLAC	ED&I	2	4 wks	\$9,200.00	\$0.00	\$0.00	\$9,200.00	\$1,840.00	\$2,760.00	\$13,800.
		SLAC Mech Drafting/Design		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$9,200.00	\$0.00	\$0.00	\$0.
455	1.2.2.1.15	Dumpline Bend Magnet			0	19 wks	\$51,120.00	\$0.00	\$0.00	\$51,120.00	\$10,224.00	\$15,336.00	\$76,680.
456	1.2.2.1.15.1	Magnetic Modeling	SLAC	ED&I	2	2 wks	\$6,720.00	\$0.00	\$0.00	\$6,720.00	\$1,344.00	\$2,016.00	\$10,080.
		SLAC Mechanical Engineer		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$6,720.00	\$0.00	\$0.00	\$0.
157	1.2.2.1.15.2	Magnet Design	SLAC	ED&I	2	3 wks	\$10,080.00	\$0.00	\$0.00	\$10,080.00	\$2,016.00	\$3,024.00	\$15,120
		SLAC AD: Mech/Vacuum Engineer		ED&I	0	3 wks	\$0.00	\$0.00	\$0.00	\$10,080.00	\$0.00	\$0.00	\$0.
158	1.2.2.1.15.3	-	SLAC	ED&I	2	8 wks	\$18,400.00	\$0.00	\$0.00	\$18,400.00	\$3,680.00	\$5,520.00	\$27,600
		SLAC Mech Drafting/Design		ED&I	0	8 wks	\$0.00	\$0.00	\$0.00	\$18,400.00	\$0.00	\$0.00	\$0.
59	1.2.2.1.15.4		SLAC	ED&I	2	2 wks	\$6,720.00	\$0.00	\$0.00	\$6,720.00	\$1,344.00	\$2,016.00	\$10,080
159	1.2.2.1.15.4		SLAC										
		SLAC Mechanical Engineer		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$6,720.00	\$0.00	\$0.00	\$0.
160	1.2.2.1.15.5		SLAC	ED&I	2	4 wks	\$9,200.00	\$0.00	\$0.00	\$9,200.00	\$1,840.00	\$2,760.00	\$13,800
		SLAC Mech Drafting/Design		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$9,200.00	\$0.00	\$0.00	\$0.
461	1.2.2.1.16	Quadrupoles - QE			0	16 wks	\$43,160.00	\$0.00	\$0.00	\$43,160.00	\$8,632.00	\$12,948.00	\$64,740
462	1.2.2.1.16.1	Magnetic Modeliing	SLAC	ED&I	2	2 wks	\$6,720.00	\$0.00	\$0.00	\$6,720.00	\$1,344.00	\$2,016.00	\$10,080
		SLAC Mechanical Engineer		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$6,720.00	\$0.00	\$0.00	\$0.
463	1.2.2.1.16.2	Magnet Design	SLAC	ED&I	2	3 wks	\$10,080.00	\$0.00	\$0.00	\$10,080.00	\$2,016.00	\$3,024.00	\$15,120
		SLAC AD: Mech/Vacuum Engineer		ED&I	0	3 wks	\$0.00	\$0.00	\$0.00	\$10,080.00	\$0.00	\$0.00	\$0.
464	1.2.2.1.16.3	Magnet Drafting	SLAC	ED&I	2	8 wks	\$18,400.00	\$0.00	\$0.00	\$18,400.00	\$3,680.00	\$5,520.00	\$27,600
		SLAC Mech Drafting/Design		ED&I	0	8 wks	\$0.00	\$0.00	\$0.00	\$18,400.00	\$0.00	\$0.00	\$0.
465	1.2.2.1.16.4	Magnet Support Design	SLAC	ED&I	2	1 wk	\$3,360.00	\$0.00	\$0.00	\$3,360.00	\$672.00	\$1,008.00	\$5,040
		SLAC Mechanical Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$3,360.00	\$0.00	\$0.00	\$0.
166	1.2.2.1.16.5	Magnet Support Drafting	SLAC	ED&I	2	2 wks	\$4,600.00	\$0.00	\$0.00	\$4,600.00	\$920.00	\$1,380.00	\$6,900
		SLAC Mech Drafting/Design		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,600.00	\$0.00	\$0.00	\$0.
167	1.2.2.1.17	Quad Magnet 0.91Q17.72			0	16 wks	\$43,160.00	\$0.00	\$0.00	\$43,160.00	\$8,632.00	\$12,948.00	\$64,740.
168	1.2.2.1.17.1	Magnetic Modelling	SLAC	ED&I	2	2 wks	\$6,720.00	\$0.00	\$0.00	\$6,720.00	\$1,344.00	\$2,016.00	\$10,080
		SLAC Mechanical Engineer		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$6,720.00	\$0.00	\$0.00	\$0
469	1.2.2.1.17.2		SLAC	ED&I	2	3 wks	\$10,080.00	\$0.00	\$0.00	\$10,080.00	\$2,016.00	\$3,024.00	\$15,120
.03	1.2.2.1.11.2	, , ,	GLAC										
		SLAC AD: Mech/Vacuum Engineer		ED&I	0	3 wks	\$0.00	\$0.00	\$0.00	\$10,080.00	\$0.00	\$0.00	\$0

ID		Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
1470	1.2.2.1.17.3	Magnet Drafting	SLAC	ED&I	2	8 wks	\$18,400.00	\$0.00	\$0.00	\$18,400.00	\$3,680.00	\$5,520.00	\$27,600.0
		SLAC Mech Drafting/Design		ED&I	0	8 wks	\$0.00	\$0.00	\$0.00	\$18,400.00	\$0.00	\$0.00	\$0.0
1471	1.2.2.1.17.4	Magnet Support Design	SLAC	ED&I	2	1 wk	\$3,360.00	\$0.00	\$0.00	\$3,360.00	\$672.00	\$1,008.00	\$5,040.0
		SLAC Mechanical Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$3,360.00	\$0.00	\$0.00	\$0.0
1472	1.2.2.1.17.5	Magnet Support Drafting	SLAC	ED&I	2	2 wks	\$4,600.00	\$0.00	\$0.00	\$4,600.00	\$920.00	\$1,380.00	\$6,900.0
		SLAC Mech Drafting/Design		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,600.00	\$0.00	\$0.00	\$0.0
1473	1.2.2.1.18	Superconducting Wiggler			2	15 wks	\$44,200.00	\$0.00	\$0.00	\$44,200.00	\$8,840.00	\$7,956.00	\$60,996.0
1474	1.2.2.1.18.1	Magnet Modelling	SLAC	ED&I	1	4 wks	\$13,600.00	\$0.00	\$0.00	\$13,600.00	\$2,720.00	\$2,448.00	\$18,768.0
		SLAC Physicist -Scientist		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$13,600.00	\$0.00	\$0.00	\$0.0
1475	1.2.2.1.18.2	Magnet Design(bid pkg)	SLAC	ED&I	1	3 wks	\$10,080.00	\$0.00	\$0.00	\$10,080.00	\$2,016.00	\$1,814.40	\$13,910.4
		SLAC Mechanical Engineer		ED&I	0	3 wks	\$0.00	\$0.00	\$0.00	\$10,080.00	\$0.00	\$0.00	\$0.0
1476	1.2.2.1.18.3	Magnet drafting(bid pkg)	SLAC	ED&I	1	2 wks	\$4,600.00	\$0.00	\$0.00	\$4,600.00	\$920.00	\$828.00	\$6,348.0
		SLAC Mech Drafting/Design		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,600.00	\$0.00	\$0.00	\$0.0
1477	1.2.2.1.18.4	Magnet support design	SLAC	ED&I	1	1 wk	\$3,360.00	\$0.00	\$0.00	\$3,360.00	\$672.00	\$604.80	\$4,636.8
		SLAC Mechanical Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$3,360.00	\$0.00	\$0.00	\$0.0
1478	1.2.2.1.18.5	Magnet support drafting	SLAC	ED&I	1	2 wks	\$4,600.00	\$0.00	\$0.00	\$4,600.00	\$920.00	\$828.00	\$6,348.0
		SLAC Mech Drafting/Design		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,600.00	\$0.00	\$0.00	\$0.0
1479	1.2.2.1.18.6	Cryo Design	SLAC	ED&I	1	1 wk	\$3,360.00	\$0.00	\$0.00	\$3,360.00	\$672.00	\$604.80	\$4,636.8
		SLAC Mechanical Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$3,360.00	\$0.00	\$0.00	\$0.0
1480	1.2.2.1.18.7	Cryo drafting	SLAC	ED&I	1	2 wks	\$4,600.00	\$0.00	\$0.00	\$4,600.00	\$920.00	\$828.00	\$6,348.0
		SLAC Mech Drafting/Design		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,600.00	\$0.00	\$0.00	\$0.0
1481	1.2.2.1.19	Accelerator Structures - L1		2507	0	6 wks	\$20,160.00	\$0.00	\$0.00	\$20,160.00	\$4,032.00	\$6,048.00	\$30,240.0
1482	1.2.2.1.19.1	Structure Design (cutting structure)	SLAC	ED&I	2	2 wks	\$6,720.00	\$0.00	\$0.00	\$6,720.00	\$1,344.00	\$2,016.00	\$10,080.0
1402	1.2.2.1.19.1		SLAC	ED&I	0				\$0.00			\$2,016.00	
		SLAC Mechanical Engineer				2 wks	\$0.00	\$0.00	,,,,,	\$6,720.00	\$0.00	,,,,,	\$0.0
1483	1.2.2.1.19.2		SLAC	ED&I	2	4 wks	\$13,440.00	\$0.00	\$0.00	\$13,440.00	\$2,688.00	\$4,032.00	\$20,160.0
		SLAC AD: Mech/Vacuum Engineer		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$13,440.00	\$0.00	\$0.00	\$0.0
1484	1.2.2.1.20	X-Band Design			0	52.75 wks	\$155,037.90	\$0.00	\$0.00	\$155,037.90	\$31,007.58	\$64,204.56	\$250,250.0
1485	1.2.2.1.20.1	Klystron Design	SLAC	ED&I	3	20 wks	\$57,864.00	\$0.00	\$0.00	\$57,864.00	\$11,572.80	\$24,302.88	\$93,739.6
		SLAC Klystron: Engineer		ED&I	0	20 wks	\$0.00	\$0.00	\$0.00	\$57,864.00	\$0.00	\$0.00	\$0.0
486	1.2.2.1.20.1	Kly Mount Desgn	SLAC	ED&I	3	5 wks	\$14,466.00	\$0.00	\$0.00	\$14,466.00	\$2,893.20	\$6,075.72	\$23,434.9
		SLAC Klystron: Engineer		ED&I	0	5 wks	\$0.00	\$0.00	\$0.00	\$14,466.00	\$0.00	\$0.00	\$0.0
1487	1.2.2.1.20.2	Modulator Design	SLAC	ED&I	3	2 wks	\$5,786.40	\$0.00	\$0.00	\$5,786.40	\$1,157.28	\$2,430.29	\$9,373.9
-		SLAC Klystron: Engineer		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$5,786.40	\$0.00	\$0.00	\$0.0
488	1.2.2.1.20.2	Modulator Documentation	SLAC	ED&I	3	3 wks	\$6,900.00	\$0.00	\$0.00	\$6,900.00	\$1,380.00	\$2,898.00	\$11,178.0
		SLAC Mech Drafting/Design		ED&I	0	3 wks	\$0.00	\$0.00	\$0.00	\$6,900.00	\$0.00	\$0.00	\$0.0

ID		Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
489	1.2.2.1.20.2	Tank Design	SLAC	ED&I	0	0.75 wks	\$2,169.90	\$0.00	\$0.00	\$2,169.90	\$433.98	\$0.00	\$2,603.8
		SLAC Klystron: Engineer		ED&I	0	0.75 wks	\$0.00	\$0.00	\$0.00	\$2,169.90	\$0.00	\$0.00	\$0.0
490	1.2.2.1.20.3	LLRF Design	SLAC	ED&I	3	4 wks	\$11,572.80	\$0.00	\$0.00	\$11,572.80	\$2,314.56	\$4,860.58	\$18,747.
		SLAC Klystron: Engineer		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$11,572.80	\$0.00	\$0.00	\$0.0
491	1.2.2.1.20.4	Waveguide System Design	SLAC	ED&I	3	4 wks	\$11,572.80	\$0.00	\$0.00	\$11,572.80	\$2,314.56	\$4,860.58	\$18,747.
\dashv		SLAC Klystron: Engineer		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$11,572.80	\$0.00	\$0.00	\$0.0
492	1.2.2.1.20.4	Waveguide Support Design	SLAC	ED&I	3	3 wks	\$10,080.00	\$0.00	\$0.00	\$10,080.00	\$2,016.00	\$4,233.60	\$16,329.
		SLAC AD: Mech/Vacuum Engineer		ED&I	0	3 wks	\$0.00	\$0.00	\$0.00	\$10,080.00	\$0.00	\$0.00	\$0.
493	1.2.2.1.20.5	Structure Design	SLAC	ED&I	3	5 wks	\$14,466.00	\$0.00	\$0.00	\$14,466.00	\$2,893.20	\$6,075.72	\$23,434.
_		SLAC Klystron: Engineer		ED&I	0	5 wks	\$0.00	\$0.00	\$0.00	\$14,466.00	\$0.00	\$0.00	\$0.
494	1.2.2.1.20.5	Structure Support Design	SLAC	ED&I	3	6 wks	\$20,160.00	\$0.00	\$0.00	\$20,160.00	\$4,032.00	\$8,467.20	\$32,659.
		SLAC AD: Mech/Vacuum Engineer		ED&I	0	6 wks	\$0.00	\$0.00	\$0.00	\$20,160.00	\$0.00	\$0.00	\$0.
495	1.2.2.1.21	Accelerator Structures - Transverse			0	12 wks	\$40,320.00	\$0.00	\$0.00	\$40,320.00	\$8,064.00	\$12,096.00	\$60,480.
496	1.2.2.1.21.1	Structure Design	SLAC	ED&I	2	2 wks	\$6,720.00	\$0.00	\$0.00	\$6,720.00	\$1,344.00	\$2,016.00	\$10,080.
		SLAC Mechanical Engineer		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$6,720.00	\$0.00	\$0.00	\$0.
197	1.2.2.1.21.2	-	SLAC	ED&I	2	4 wks	\$13,440.00	\$0.00	\$0.00	\$13,440.00	\$2,688.00	\$4,032.00	\$20,160
+97	1.2.2.1.21.2	·	SLAC										
		SLAC AD: Mech/Vacuum Engineer		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$13,440.00	\$0.00	\$0.00	\$0.
498	1.2.2.1.21.3	•	SLAC	ED&I	2	2 wks	\$6,720.00	\$0.00	\$0.00	\$6,720.00	\$1,344.00	\$2,016.00	\$10,080
		SLAC AD: Mech/Vacuum Engineer		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$6,720.00	\$0.00	\$0.00	\$0.
499	1.2.2.1.21.4	Structure Support Drafting	SLAC	ED&I	2	4 wks	\$13,440.00	\$0.00	\$0.00	\$13,440.00	\$2,688.00	\$4,032.00	\$20,160
		SLAC AD: Mech/Vacuum Engineer		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$13,440.00	\$0.00	\$0.00	\$0.
500	1.2.2.1.22	RF Distribution System			0	120 wks	\$329,288.48	\$0.00	\$0.00	\$329,288.48	\$65,857.14	\$108,507.77	\$503,653.
501	1.2.2.1.22.1	System RF Design	SLAC		4	88 wks	\$242,419.20	\$0.00	\$0.00	\$242,419.20	\$48,483.28	\$82,446.98	\$373,349.
502	1.2.2.1.22.1	Drafting	SLAC	ED&I	2	20 wks	\$46,000.00	\$0.00	\$0.00	\$46,000.00	\$9,200.00	\$13,800.00	\$69,000
\dashv		SLAC Mech Drafting/Design		ED&I	0	20 wks	\$0.00	\$0.00	\$0.00	\$46,000.00	\$0.00	\$0.00	\$0.
503	1.2.2.1.22.1	Documentation	SLAC	ED&I	2	10 wks	\$28,932.00	\$0.00	\$0.00	\$28,932.00	\$5,786.40	\$8,679.60	\$43,398
		SLAC Klystron: Engineer		ED&I	0	10 wks	\$0.00	\$0.00	\$0.00	\$28,932.00	\$0.00	\$0.00	\$0.
504	1.2.2.1.22.1	X-Band Phase Chassis	SLAC	ED&I	3	12 wks	\$34,718.40	\$0.00	\$0.00	\$34,718.40	\$6,943.68	\$14,581.73	\$56,243
\dashv		SLAC Klystron: Engineer		ED&I	0	12 wks	\$0.00	\$0.00	\$0.00	\$34,718.40	\$0.00	\$0.00	\$0.
505	1.2.2.1.22.1	X-Band Phase Chassis	SLAC	M&S	3	0 wks	\$1.00	\$0.00	\$0.00	\$1.00	\$0.06	\$0.37	\$1
_		SLAC M&S Total		M&S	0	1	\$10,000.00	\$0.00	\$0.00	\$1.00	\$0.00	\$0.00	\$0
506	1.2.2.1.22.1	X-Band PAD Mods	SLAC	ED&I	3	16 wks	\$46,291.20	\$0.00	\$0.00	\$46,291.20	\$9,258.24	\$19,442.30	\$74,991
		SLAC Klystron: Engineer		ED&I	0	16 wks	\$0.00	\$0.00	\$0.00	\$46,291.20	\$0.00	\$0.00	\$0
507	1.2.2.1.22.1	X-Band PAD Mods	SLAC	M&S	3	0 wks	\$1.00	\$0.00	\$0.00	\$1.00	\$0.06	\$0.00	\$1
501	1.4.4.1.44.1	A-Balld PAD Widus SLAC M&S Total	SLAC	M&S	0	U WKS	\$10,000.00	\$0.00	\$0.00	\$1.00	\$0.00	\$0.37	\$0.

ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
508	1.2.2.1.22.1	RF Dist. PRL Coaxal Water	SLAC	ED&I	2	2 wks	\$4,600.00	\$0.00	\$0.00	\$4,600.00	\$920.00	\$1,380.00	\$6,900.0
		SLAC Mech Drafting/Design		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,600.00	\$0.00	\$0.00	\$0.0
509	1.2.2.1.22.1	2 Watt Distribution Amp [10]	SLAC	ED&I	2	12 wks	\$34,718.40	\$0.00	\$0.00	\$34,718.40	\$6,943.68	\$10,415.52	\$52,077.0
		SLAC Klystron: Engineer		ED&I	0	12 wks	\$0.00	\$0.00	\$0.00	\$34,718.40	\$0.00	\$0.00	\$0.0
510	1.2.2.1.22.1	2 Watt Distribution Amp [10]	SLAC	M&S	2	0 wks	\$1.00	\$0.00	\$0.00	\$1.00	\$0.06	\$0.27	\$1.
		SLAC M&S Total		M&S	0	1	\$4,000.00	\$0.00	\$0.00	\$1.00	\$0.00	\$0.00	\$0.
511	1.2.2.1.22.1	Exp. F.O. RF Ref. Electronics	SLAC	ED&I	2	16 wks	\$47,155.20	\$0.00	\$0.00	\$47,155.20	\$9,431.04	\$14,146.56	\$70,732.
		SLAC Controls: Engineer		ED&I	0	16 wks	\$0.00	\$0.00	\$0.00	\$47,155.20	\$0.00	\$0.00	\$0.
512	1.2.2.1.22.1	Exp. F.O. RF Ref. Electronics	SLAC	M&S	2	0 wks	\$1.00	\$0.00	\$0.00	\$1.00	\$0.06	\$0.27	\$1.
		SLAC M&S Total		M&S	0	1	\$12,000.00	\$0.00	\$0.00	\$1.00	\$0.00	\$0.00	\$0.
513	1.2.2.1.22.2	Controls Design	SLAC		4	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
514	1.2.2.1.22.3	Drafting	SLAC		4	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
515	1.2.2.1.22.4	RF Controls Hardware Engineering	SLAC	ED&I	2	17.5 wks	\$52,500.00	\$0.00	\$0.00	\$52,500.00	\$10,500.00	\$15,750.00	\$78,750.
		S LAC Electrical Engineer		ED&I	0	17.5 wks	\$0.00	\$0.00	\$0.00	\$52,500.00	\$0.00	\$0.00	\$0.
516	1.2.2.1.22.5	RF Controls Software Engineering	SLAC	ED&I	2	10.2 wks	\$25,769.28	\$0.00	\$0.00	\$25,769.28	\$5,153.86	\$7,730.78	\$38,653.
		SLAC Controls: Programmer		ED&I	0	10.2 wks	\$0.00	\$0.00	\$0.00	\$25,769.28	\$0.00	\$0.00	\$0.
517	1.2.2.1.22.6	RF Controls Coordintaion & Doc.	SLAC	ED&I	2	4.3 wks	\$8,600.00	\$0.00	\$0.00	\$8,600.00	\$1,720.00	\$2,580.00	\$12,900
		SLAC Controls: Coordinator Assoc.		ED&I	0	4.3 wks	\$0.00	\$0.00	\$0.00	\$8,600.00	\$0.00	\$0.00	\$0.
518	1.2.2.1.23	Systems RF Design	SLAC		0	93.25 wks	\$292,415.20	\$0.00	\$0.00	\$292,415.20	\$53,443.04	\$86,464.56	\$432,322.
519	1.2.2.1.23.1	Drafting	SLAC	ED&I	2	20 wks	\$46,000.00	\$0.00	\$0.00	\$46,000.00	\$9,200.00	\$13,800.00	\$69,000
		SLAC Mech Drafting/Design		ED&I	0	20 wks	\$0.00	\$0.00	\$0.00	\$46,000.00	\$0.00	\$0.00	\$0.
520	1.2.2.1.23.1	Documentation	SLAC	ED&I	2	10 wks	\$28,932.00	\$0.00	\$0.00	\$28,932.00	\$5,786.40	\$8,679.60	\$43,398.
		SLAC Klystron: Engineer		ED&I	0	10 wks	\$0.00	\$0.00	\$0.00	\$28,932.00	\$0.00	\$0.00	\$0.
521	1.2.2.1.23.1	X-Band Phase Chassis	SLAC	ED&I	2	12 wks	\$34,718.40	\$0.00	\$0.00	\$34,718.40	\$6,943.68	\$10,415.52	\$52,077.
		SLAC Klystron: Engineer		ED&I	0	12 wks	\$0.00	\$0.00	\$0.00	\$34,718.40	\$0.00	\$0.00	\$0.
522	1.2.2.1.23.1	X-Band Phase Chassis	SLAC	M&S	2	0 wks	\$10,000.00	\$0.00	\$0.00	\$10,000.00	\$600.00	\$2,650.00	\$13,250.
		SLAC M&S Total		M&S	0	10,000	\$0.00	\$0.00	\$0.00	\$10,000.00	\$0.00	\$0.00	\$0.
523	1.2.2.1.23.1	X-Band PAD Mods	SLAC	ED&I	2	16 wks	\$46,291.20	\$0.00	\$0.00	\$46,291.20	\$9,258.24	\$13,887.36	\$69,436.
		SLAC Klystron: Engineer		ED&I	0	16 wks	\$0.00	\$0.00	\$0.00	\$46,291.20	\$0.00	\$0.00	\$0.
524	1.2.2.1.23.1	X-Band PAD Mods	SLAC	M&S	2	0 wks	\$10,000.00	\$0.00	\$0.00	\$10,000.00	\$600.00	\$2,650.00	\$13,250
		SLAC M&S Total		M&S	0	10,000	\$0.00	\$0.00	\$0.00	\$10,000.00	\$0.00	\$0.00	\$0.
525	1.2.2.1.23.1	RF Dist. PRL Coaxal Water	SLAC	ED&I	2	2 wks	\$4,600.00	\$0.00	\$0.00	\$4,600.00	\$920.00	\$1,380.00	\$6,900.
		SLAC Mech Drafting/Design		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,600.00	\$0.00	\$0.00	\$0.
526	1.2.2.1.23.1	2 Watt Distribution Amp [10]	SLAC	ED&I	2	12 wks	\$34,718.40	\$0.00	\$0.00	\$34,718.40	\$6,943.68	\$10,415.52	\$52,077.
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ID		Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
527	1.2.2.1.23.1	2 Watt Distribution Amp [10]	SLAC	M&S	2	0 wks	\$4,000.00	\$0.00	\$0.00	\$4,000.00	\$240.00	\$1,060.00	\$5,300.0
		SLAC M&S Total		M&S	0	4,000	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$0.0
528	1.2.2.1.23.1	Exp. F.O. RF Ref. Electronics	SLAC	ED&I	2	16 wks	\$47,155.20	\$0.00	\$0.00	\$47,155.20	\$9,431.04	\$14,146.56	\$70,732.
\neg		SLAC Controls: Engineer		ED&I	0	16 wks	\$0.00	\$0.00	\$0.00	\$47,155.20	\$0.00	\$0.00	\$0.0
529	1.2.2.1.23.1	Exp. F.O. RF Ref. Electronics	SLAC	M&S	2	0 wks	\$12,000.00	\$0.00	\$0.00	\$12,000.00	\$720.00	\$3,180.00	\$15,900.
\dashv		SLAC M&S Total		M&S	0	12,000	\$0.00	\$0.00	\$0.00	\$12,000.00	\$0.00	\$0.00	\$0.
530	1.2.2.1.23.1	Controls Hardware Engineering	SLAC	ED&I	2	3.5 wks	\$10,500.00	\$0.00	\$0.00	\$10,500.00	\$2,100.00	\$3,150.00	\$15,750
		S LAC Electrical Engineer		ED&I	0	3.5 wks	\$0.00	\$0.00	\$0.00	\$10,500.00	\$0.00	\$0.00	\$0.
531	1.2.2.1.23.1	Controls Coordintaion & Doc.'n	SLAC	ED&I	2	1.75 wks	\$3,500.00	\$0.00	\$0.00	\$3,500.00	\$700.00	\$1,050.00	\$5,250
-		SLAC Controls: Coordinator Assoc.		ED&I	0	1.75 wks	\$0.00	\$0.00	\$0.00	\$3,500.00	\$0.00	\$0.00	\$0.
532	1.2.2.1.24	Bunch Length Monitor			0	30 wks	\$144,880.00	\$0.00	\$0.00	\$144,880.00	\$21,976.00	\$58,399.60	\$225,255.
533	1.2.2.1.24.1	Bunch Length Monitor Physics	SLAC		4	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
534	1.2.2.1.24.2	Bunch Length Monitor Design	SLAC	M&S	3	0 wks	\$50,000.00	\$0.00	\$0.00	\$50,000.00	\$3,000.00	\$18,550.00	\$71,550
\dashv		SLAC M&S Total		M&S	0	50,000	\$0.00	\$0.00	\$0.00	\$50,000.00	\$0.00	\$0.00	\$0
35	1.2.2.1.24.2	Bunch Length Monitor Design	SLAC	ED&I	3	10 wks	\$33,600.00	\$0.00	\$0.00	\$33,600.00	\$6,720.00	\$14,112.00	\$54,432
	1.2.2.1.24.2	SLAC Mechanical Engineer	0210	ED&I	0	10 wks	\$0.00	\$0.00	\$0.00	\$33,600.00	\$0.00	\$0.00	\$04,402
36	1.2.2.1.24.3	-	SLAC	ED&I		10 wks	\$33,600.00	\$0.00	\$0.00	\$33,600.00	\$6,720.00		\$54,432
30	1.2.2.1.24.3		SLAC	ED&I	3		\$0.00		\$0.00				
		SLAC AD: Mech/Vacuum Engineer			0	10 wks		\$0.00		\$33,600.00	\$0.00	\$0.00	\$0
537	1.2.2.1.24.4		SLAC	ED&I	3	2 wks	\$4,600.00	\$0.00	\$0.00	\$4,600.00	\$920.00	\$1,932.00	\$7,452
		SLAC Mech Drafting/Design		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,600.00	\$0.00	\$0.00	\$0
538	1.2.2.1.24.5	Bunch Length Monitor Support Drafting	SLAC	ED&I	3	3 wks	\$10,080.00	\$0.00	\$0.00	\$10,080.00	\$2,016.00	\$4,233.60	\$16,329
		SLAC Mechanical Engineer		ED&I	0	3 wks	\$0.00	\$0.00	\$0.00	\$10,080.00	\$0.00	\$0.00	\$0
539	1.2.2.1.24.6	Controls Hardware Engineering	SLAC	ED&I	3	3 wks	\$9,000.00	\$0.00	\$0.00	\$9,000.00	\$1,800.00	\$3,780.00	\$14,580
		S LAC Electrical Engineer		ED&I	0	3 wks	\$0.00	\$0.00	\$0.00	\$9,000.00	\$0.00	\$0.00	\$0
540	1.2.2.1.24.7	Controls Coordination and Documentation	SLAC	ED&I	3	2 wks	\$4,000.00	\$0.00	\$0.00	\$4,000.00	\$800.00	\$1,680.00	\$6,480
\neg		SLAC Controls: Coordinator Assoc.		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$0
541	1.2.2.1.25	Collimators			0	16 wks	\$47,840.00	\$0.00	\$0.00	\$47,840.00	\$9,568.00	\$17,292.00	\$74,700
542	1.2.2.1.25.1	Collimator Design	SLAC	ED&I	2	2 wks	\$6,720.00	\$0.00	\$0.00	\$6,720.00	\$1,344.00	\$2,016.00	\$10,080
\dashv		SLAC Mechanical Engineer		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$6,720.00	\$0.00	\$0.00	\$0
543	1.2.2.1.25.2	Collimator Drafting	SLAC	ED&I	2	4 wks	\$13,440.00	\$0.00	\$0.00	\$13,440.00	\$2,688.00	\$4,032.00	\$20,160
\dashv		SLAC AD: Mech/Vacuum Engineer		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$13,440.00	\$0.00	\$0.00	\$0
544	1.2.2.1.25.3	Collimator Support Design	SLAC	ED&I	4	2 wks	\$4,600.00	\$0.00	\$0.00	\$4,600.00	\$920.00	\$2,760.00	\$8,280
\dashv		SLAC Mech Drafting/Design		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,600.00	\$0.00	\$0.00	\$0
545	1.2.2.1.25.4	Collimator Support Drafting	SLAC	ED&I	2	3 wks	\$10,080.00	\$0.00	\$0.00	\$10,080.00	\$2,016.00	\$3,024.00	\$15,120
		SLAC Mechanical Engineer		ED&I	0	3 wks	\$0.00	\$0.00	\$0.00	\$10,080.00	\$0.00	\$0.00	\$0

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ID		Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
546	1.2.2.1.25.5	Hardware Engineering	SLAC	ED&I	3	3 wks	\$9,000.00	\$0.00	\$0.00	\$9,000.00	\$1,800.00	\$3,780.00	\$14,580.0
		S LAC Electrical Engineer		ED&I	0	3 wks	\$0.00	\$0.00	\$0.00	\$9,000.00	\$0.00	\$0.00	\$0.0
547	1.2.2.1.25.6	Coordination and Documentation	SLAC	ED&I	3	2 wks	\$4,000.00	\$0.00	\$0.00	\$4,000.00	\$800.00	\$1,680.00	\$6,480.0
		SLAC Controls: Coordinator Assoc.		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$0.0
548	1.2.2.1.26	E-O Diagnostic			0	21.5 wks	\$59,080.00	\$0.00	\$0.00	\$59,080.00	\$11,816.00	\$23,973.60	\$94,869.6
549	1.2.2.1.26.1	E-O Physics	SLAC	ED&I	3	2 wks	\$6,800.00	\$0.00	\$0.00	\$6,800.00	\$1,360.00	\$2,856.00	\$11,016.0
		SLAC Physicist -Scientist		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$6,800.00	\$0.00	\$0.00	\$0.
550	1.2.2.1.26.2	E-O Design	SLAC	ED&I	3	4 wks	\$13,440.00	\$0.00	\$0.00	\$13,440.00	\$2,688.00	\$5,644.80	\$21,772.
		SLAC AD: Mech/Vacuum Engineer		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$13,440.00	\$0.00	\$0.00	\$0.
551	1.2.2.1.26.3	E-O Drafting	SLAC	ED&I	3	4 wks	\$9,200.00	\$0.00	\$0.00	\$9,200.00	\$1,840.00	\$3,864.00	\$14,904.
		SLAC Mech Drafting/Design		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$9,200.00	\$0.00	\$0.00	\$0.
552	1.2.2.1.26.4	E-O Support Design	SLAC	ED&I	3	4 wks	\$13,440.00	\$0.00	\$0.00	\$13,440.00	\$2,688.00	\$5,644.80	\$21,772.
		SLAC AD: Mech/Vacuum Engineer		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$13,440.00	\$0.00	\$0.00	\$0.
553	1.2.2.1.26.5	-	SLAC	ED&I	3	4 wks	\$9,200.00	\$0.00	\$0.00	\$9,200.00	\$1,840.00	\$3,864.00	\$14,904.
		SLAC Mech Drafting/Design		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$9,200.00	\$0.00	\$0.00	\$0.
554	1.2.2.1.26.6		SLAC	ED&I	2	2 wks	\$4,000.00	\$0.00	\$0.00	\$4,000.00	\$800.00	\$1,200.00	\$6,000
004	1.2.2.1.20.0	Hardware Engineering	SLAC	ED&I									
		SLAC Controls: Coordinator Assoc.			0	2 wks	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$0.
555	1.2.2.1.26.7	Coordination & Layout	SLAC	ED&I	2	1.5 wks	\$3,000.00	\$0.00	\$0.00	\$3,000.00	\$600.00	\$900.00	\$4,500
		SLAC Controls: Coordinator Assoc.		ED&I	0	1.5 wks	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0.
556	1.2.2.1.27	New Power Supplies			0	42 wks	\$93,513.60	\$0.00	\$0.00	\$93,513.60	\$18,702.72	\$28,054.08	\$140,270.
557	1.2.2.1.27.1	New Power Supplies	SLAC	ED&I	2	12 wks	\$36,000.00	\$0.00	\$0.00	\$36,000.00	\$7,200.00	\$10,800.00	\$54,000
		SLAC PCD:Engineer		ED&I	0	12 wks	\$0.00	\$0.00	\$0.00	\$36,000.00	\$0.00	\$0.00	\$0.
558	1.2.2.1.27.2	New Power Supplies	SLAC	B&H	2	1 wk	\$1,753.60	\$0.00	\$0.00	\$1,753.60	\$350.72	\$526.08	\$2,630
		SLAC PCD:Technician		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$1,753.60	\$0.00	\$0.00	\$0.
559	1.2.2.1.27.3	New Power Supplies	SLAC	B&H	2	1 wk	\$2,000.00	\$0.00	\$0.00	\$2,000.00	\$400.00	\$600.00	\$3,000.
		SLACL PCD:Inst-Cabling-Elec Fab		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.
560	1.2.2.1.27.4	System Dwgs (El, WD, Profile,	SLAC	ED&I	2	28 wks	\$53,760.00	\$0.00	\$0.00	\$53,760.00	\$10,752.00	\$16,128.00	\$80,640.
		SLAC PCD:Coordinator Associate		ED&I	0	28 wks	\$0.00	\$0.00	\$0.00	\$53,760.00	\$0.00	\$0.00	\$0.
561	1.2.2.1.28	Main Dump	SLAC		0	34 wks	\$93,120.00	\$0.00	\$0.00	\$93,120.00	\$18,624.00	\$39,110.40	\$150,854.
562	1.2.2.1.28.1	Dump Physics	SLAC	ED&I	3	2 wks	\$6,800.00	\$0.00	\$0.00	\$6,800.00	\$1,360.00	\$2,856.00	\$11,016
		SLAC Physicist -Scientist		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$6,800.00	\$0.00	\$0.00	\$0.
63	1.2.2.1.28.2		SLAC	ED&I	3	8 wks	\$26,880.00	\$0.00	\$0.00	\$26,880.00	\$5,376.00	\$11,289.60	\$43,545
		SLAC Mechanical Engineer		ED&I	0	8 wks	\$0.00	\$0.00	\$0.00	\$26,880.00	\$0.00	\$0.00	\$0.
564	1.2.2.1.28.3	Dump Drafting	SLAC	ED&I	3	12 wks	\$27,600.00	\$0.00	\$0.00	\$27,600.00	\$5,520.00	\$11,592.00	\$44,712
J04	1.2.2.1.20.3	· -	SLAC										
		SLAC Mech Drafting/Design		ED&I	0	12 wks	\$0.00	\$0.00	\$0.00	\$27,600.00	\$0.00	\$0.00	\$0.

ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
565	1.2.2.1.28.4	Dump Support Design	SLAC	ED&I	3	4 wks	\$13,440.00	\$0.00	\$0.00	\$13,440.00	\$2,688.00	\$5,644.80	\$21,772.8
		SLAC Mechanical Engineer		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$13,440.00	\$0.00	\$0.00	\$0.0
566	1.2.2.1.28.5	Dump Support Drafting	SLAC	ED&I	3	8 wks	\$18,400.00	\$0.00	\$0.00	\$18,400.00	\$3,680.00	\$7,728.00	\$29,808.0
		SLAC Mech Drafting/Design		ED&I	0	8 wks	\$0.00	\$0.00	\$0.00	\$18,400.00	\$0.00	\$0.00	\$0.0
567	1.2.2.1.29	Linac Smoothing PED	SLAC		0	69.2 wks	\$164,488.00	\$0.00	\$0.00	\$164,488.00	\$32,897.60	\$49,346.40	\$246,732.0
568	1.2.2.1.29.1	Alignment Project Engineer	SLAC	B&H	2	26 wks	\$59,280.00	\$0.00	\$0.00	\$59,280.00	\$11,856.00	\$17,784.00	\$88,920.
		SLAC Metrology:Eng.& Surveyors		B&H	0	26 wks	\$0.00	\$0.00	\$0.00	\$59,280.00	\$0.00	\$0.00	\$0.
69	1.2.2.1.29.2	Mechanical Designer	SLAC	ED&I	2	26 wks	\$59,800.00	\$0.00	\$0.00	\$59,800.00	\$11,960.00	\$17,940.00	\$89,700
		SLAC Mech Drafting/Design		ED&I	0	26 wks	\$0.00	\$0.00	\$0.00	\$59,800.00	\$0.00	\$0.00	\$0.
570	1.2.2.1.29.3	Electrical Engineer	SLAC	ED&I	2	8.6 wks	\$25,800.00	\$0.00	\$0.00	\$25,800.00	\$5,160.00	\$7,740.00	\$38,700.
		S LAC Electrical Engineer		ED&I	0	8.6 wks	\$0.00	\$0.00	\$0.00	\$25,800.00	\$0.00	\$0.00	\$0.
571	1.2.2.1.29.4	Software Engineer and Coding	SLAC	B&H	2	8.6 wks	\$19,608.00	\$0.00	\$0.00	\$19,608.00	\$3,921.60	\$5,882.40	\$29,412
		SLAC Metrology:Eng.& Surveyors		B&H	0	8.6 wks	\$0.00	\$0.00	\$0.00	\$19,608.00	\$0.00	\$0.00	\$0.
572	1.2.2.1.30	Tune Up Dump	SLAC		3	22 wks	\$59,080.00	\$0.00	\$0.00	\$59,080.00	\$11,816.00	\$24,813.60	\$95,709.
573	1.2.2.1.30.1	TD Design	SLAC	ED&I	3	6 wks	\$20,160.00	\$0.00	\$0.00	\$20,160.00	\$4,032.00	\$8,467.20	\$32,659
		SLAC Mechanical Engineer		ED&I	0	6 wks	\$0.00	\$0.00	\$0.00	\$20,160.00	\$0.00	\$0.00	\$0
574	1.2.2.1.30.2	TD Drafting	SLAC	ED&I	3	8 wks	\$18,400.00	\$0.00	\$0.00	\$18,400.00	\$3,680.00	\$7,728.00	\$29,808
		SLAC Mech Drafting/Design		ED&I	0	8 wks	\$0.00	\$0.00	\$0.00	\$18,400.00	\$0.00	\$0.00	\$0.
575	1.2.2.1.30.3	TD Support Design	SLAC	ED&I	3	2 wks	\$6,720.00	\$0.00	\$0.00	\$6,720.00	\$1,344.00	\$2,822.40	\$10,886
		SLAC Mechanical Engineer		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$6,720.00	\$0.00	\$0.00	\$0.
76	1.2.2.1.30.4	TD Support Drafting	SLAC	ED&I	3	6 wks	\$13,800.00	\$0.00	\$0.00	\$13,800.00	\$2,760.00	\$5,796.00	\$22,356
		SLAC Mech Drafting/Design		ED&I	0	6 wks	\$0.00	\$0.00	\$0.00	\$13,800.00	\$0.00	\$0.00	\$0.
577	1.2.2.2	Mechanical			0	302.85 wks	\$0.00	\$187,000.00	\$866,399.14	\$1,053,399.14	\$184,499.83	\$360,184.11	\$1,598,083.
578	1.2.2.2.1	General Vacuum Supports			0	63.95 wks	\$0.00	\$28,000.00	\$178,393.78	\$206,393.78	\$37,358.76	\$60,938.13	\$304,690.
579	1.2.2.2.1.1	Support Materials	SLAC	M&S	2	0 wks	\$0.00	\$28,000.00	\$0.00	\$28,000.00	\$1,680.00	\$7,420.00	\$37,100
		SLAC M&S Total		M&S	0	28,000	\$0.00	\$0.00	\$0.00	\$28,000.00	\$0.00	\$0.00	\$0.
580	1.2.2.2.1.2	Support Machining	SLAC	B&H	2	42.1 wks	\$0.00	\$0.00	\$134,720.00	\$134,720.00	\$26,944.00	\$40,416.00	\$202,080
		SLAC Mech. Fab: Machine Shop		B&H	0	42.1 wks	\$0.00	\$0.00	\$0.00	\$134,720.00	\$0.00	\$0.00	\$0.
581	1.2.2.2.1.3	Support Assembly	SLAC	B&H	2	21.85 wks	\$0.00	\$0.00	\$43,673.78	\$43,673.78	\$8,734.76	\$13,102.13	\$65,510
		SLAC Mech. Fab: Assembly Tech		B&H	0	21.85 wks	\$0.00	\$0.00	\$0.00	\$43,673.78	\$0.00	\$0.00	\$0.
82	1.2.2.2.2	BC1 Chicane Articulation			0	32.3 wks	\$0.00	\$15,000.00	\$94,584.76	\$109,584.76	\$19,816.95	\$45,290.60	\$174,692
83	1.2.2.2.2.1	Articulation Materials	SLAC	M&S	3	0 wks	\$0.00	\$15,000.00	\$0.00	\$15,000.00	\$900.00	\$5,565.00	\$21,465
		SLAC M&S Total		M&S	0	15,000	\$0.00	\$0.00	\$0.00	\$15,000.00	\$0.00	\$0.00	\$0.
84	1.2.2.2.2.2	Articulation Machining	SLAC	B&H	3	16 wks	\$0.00	\$0.00	\$51,200.00	\$51,200.00	\$10,240.00	\$21,504.00	\$82,944
		SLAC Mech. Fab: Machine Shop		B&H	0	16 wks	\$0.00	\$0.00	\$0.00	\$51,200.00	\$0.00	\$0.00	\$0.

C	CD1	TEC

ID		Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
585	1.2.2.2.2.3	Articulation Cleaning/Plating	SLAC	B&H	3	3.6 wks	\$0.00	\$0.00	\$18,000.00	\$18,000.00	\$3,600.00	\$7,560.00	\$29,160.0
		SLAC Mech. Fab: Plating & Cleaning		B&H	0	3.6 wks	\$0.00	\$0.00	\$0.00	\$18,000.00	\$0.00	\$0.00	\$0.0
586	1.2.2.2.2.4	Articulation Welding	SLAC	B&H	3	6.5 wks	\$0.00	\$0.00	\$12,992.20	\$12,992.20	\$2,598.44	\$5,456.72	\$21,047.
		SLAC Mech. Fab: Assembly Tech		B&H	0	6.5 wks	\$0.00	\$0.00	\$0.00	\$12,992.20	\$0.00	\$0.00	\$0.
587	1.2.2.2.2.5	Articulation Assembly	SLAC	B&H	3	4.2 wks	\$0.00	\$0.00	\$8,394.96	\$8,394.96	\$1,678.99	\$3,525.88	\$13,599.
		SLAC Mech. Fab: Assembly Tech		B&H	0	4.2 wks	\$0.00	\$0.00	\$0.00	\$8,394.96	\$0.00	\$0.00	\$0.
88	1.2.2.2.2.6	Articulation Motion Testing	SLAC	B&H	3	2 wks	\$0.00	\$0.00	\$3,997.60	\$3,997.60	\$799.52	\$1,678.99	\$6,476
\dashv		SLAC Mech. Fab: Assembly Tech		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$3,997.60	\$0.00	\$0.00	\$0.
89	1.2.2.2.3	BC2 Chicane Articulation			0	35 wks	\$0.00	\$17,000.00	\$99,981.52	\$116,981.52	\$21,016.30	\$48,299.24	\$186,297.
90	1.2.2.2.3.1	Articulation Materials	SLAC	M&S	3	0 wks	\$0.00	\$17,000.00	\$0.00	\$17,000.00	\$1,020.00	\$6,307.00	\$24,327
_		SLAC M&S Total		M&S	0	17,000	\$0.00	\$0.00	\$0.00	\$17,000.00	\$0.00	\$0.00	\$0.
91	1.2.2.2.3.2		SLAC	B&H	3	16 wks	\$0.00	\$0.00	\$51,200.00	\$51,200.00	\$10,240.00	\$21,504.00	\$82,944
		SLAC Mech. Fab: Machine Shop		B&H	0	16 wks	\$0.00	\$0.00	\$0.00	\$51,200.00	\$0.00	\$0.00	\$0
92	1.2.2.2.3.3	·	SLAC	B&H	3	3.6 wks	\$0.00	\$0.00	\$18,000.00	\$18,000.00	\$3,600.00	\$7,560.00	\$29,160
92	1.2.2.2.3.3	, , , , , , , , , , , , , , , , , , ,	SLAC				,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,						
		SLAC Mech. Fab: Plating & Cleaning		B&H	0	3.6 wks	\$0.00	\$0.00	\$0.00	\$18,000.00	\$0.00	\$0.00	\$0
93	1.2.2.2.3.4	Articulation Welding	SLAC	B&H	3	8 wks	\$0.00	\$0.00	\$15,990.40	\$15,990.40	\$3,198.08	\$6,715.97	\$25,904
		SLAC Mech. Fab: Assembly Tech		B&H	0	8 wks	\$0.00	\$0.00	\$0.00	\$15,990.40	\$0.00	\$0.00	\$0
94	1.2.2.2.3.5	Articulation Assembly	SLAC	B&H	3	5 wks	\$0.00	\$0.00	\$9,994.00	\$9,994.00	\$1,998.80	\$4,197.48	\$16,190
		SLAC Mech. Fab: Assembly Tech		B&H	0	5 wks	\$0.00	\$0.00	\$0.00	\$9,994.00	\$0.00	\$0.00	\$0
595	1.2.2.2.3.6	Articulation Motion Testing	SLAC	B&H	3	2.4 wks	\$0.00	\$0.00	\$4,797.12	\$4,797.12	\$959.42	\$2,014.79	\$7,771
		SLAC Mech. Fab: Assembly Tech		B&H	0	2.4 wks	\$0.00	\$0.00	\$0.00	\$4,797.12	\$0.00	\$0.00	\$0
96	1.2.2.2.4	Dumpline Vacuum Supports			0	40 wks	\$0.00	\$50,000.00	\$113,280.00	\$163,280.00	\$25,656.00	\$66,127.60	\$255,063
97	1.2.2.2.4.1	Support Materials	SLAC	M&S	3	0 wks	\$0.00	\$50,000.00	\$0.00	\$50,000.00	\$3,000.00	\$18,550.00	\$71,550
\dashv		SLAC M&S Total		M&S	0	50,000	\$0.00	\$0.00	\$0.00	\$50,000.00	\$0.00	\$0.00	\$0
98	1.2.2.2.4.2	Support Machining	SLAC	B&H	3	24 wks	\$0.00	\$0.00	\$76,800.00	\$76,800.00	\$15,360.00	\$32,256.00	\$124,416
_		SLAC Mech. Fab: Machine Shop		B&H	0	24 wks	\$0.00	\$0.00	\$0.00	\$76,800.00	\$0.00	\$0.00	\$0
599	1.2.2.2.4.3	Support Assembly	SLAC	B&H	3	16 wks	\$0.00	\$0.00	\$36,480.00	\$36,480.00	\$7,296.00	\$15,321.60	\$59,097
		SLAC Metrology:Eng.& Surveyors		B&H	0	16 wks	\$0.00	\$0.00	\$0.00	\$36,480.00	\$0.00	\$0.00	\$0
500	1.2.2.2.5	Bend Magnet 5D7.1			0	9.6 wks	\$0.00	\$3,000.00	\$27,837.12	\$30,837.12	\$5,747.42	\$9,146.14	\$45,730
01	1.2.2.2.5.1	-	SLAC	M&S	2	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$180.00	\$795.00	\$3,975
01	1.2.2.2.5.1	Support Materials	SLAC		-								
		SLAC M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0
02	1.2.2.2.5.2	,	SLAC	B&H	2	7.2 wks	\$0.00	\$0.00	\$23,040.00	\$23,040.00	\$4,608.00	\$6,912.00	\$34,560
		SLAC Mech. Fab: Machine Shop		B&H	0	7.2 wks	\$0.00	\$0.00	\$0.00	\$23,040.00	\$0.00	\$0.00	\$0
03	1.2.2.2.5.3	Magnet Support Assembly	SLAC	B&H	2	2.4 wks	\$0.00	\$0.00	\$4,797.12	\$4,797.12	\$959.42	\$1,439.14	\$7,195
-		SLAC Mech. Fab: Assembly Tech		B&H	0	2.4 wks	\$0.00	\$0.00	\$0.00	\$4,797.12	\$0.00	\$0.00	\$0.

ID 1604	CWBS 1.2.2.2.6	Task Name Bend Magnet 1D30.5	OBS	PHASE	Risk 0	Units 9.6 wks	PED (Direct) \$0.00	M&S (Direct) \$3,000.00	Labor (Direct) \$27,837.12	Direct Cost \$30,837.12	Overhead Cost \$5,747.42	Contingency Cost \$9,146.14	Total Cost \$45,730.6
605	1.2.2.2.6.1	Support Materials	SLAC	M&S	2	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$180.00	\$795.00	\$3,975.0
		SLAC M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0.0
606	1.2.2.2.6.2		SLAC	B&H	2	7.2 wks	\$0.00	\$0.00	\$23,040.00	\$23,040.00	\$4,608.00	\$6,912.00	\$34,560.0
000	1.2.2.2.0.2		OD/10										
		SLAC Mech. Fab: Machine Shop		B&H	0	7.2 wks	\$0.00	\$0.00	\$0.00	\$23,040.00	\$0.00	\$0.00	\$0.0
607	1.2.2.2.6.3	Magnet Support Assembly	SLAC	B&H	2	2.4 wks	\$0.00	\$0.00	\$4,797.12	\$4,797.12	\$959.42	\$1,439.14	\$7,195.6
		SLAC Mech. Fab: Assembly Tech		B&H	0	2.4 wks	\$0.00	\$0.00	\$0.00	\$4,797.12	\$0.00	\$0.00	\$0.0
1608	1.2.2.2.7	Bend Magnet 4D102.36T			0	1.2 wks	\$0.00	\$1,000.00	\$2,879.04	\$3,879.04	\$635.81	\$1,128.71	\$5,643.5
609	1.2.2.2.7.1	Support Materials	SLAC	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$265.00	\$1,325.0
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.0
1610	1.2.2.2.7.3	Support Machining	SLAC	B&H	2	0.4 wks	\$0.00	\$0.00	\$1,280.00	\$1,280.00	\$256.00	\$384.00	\$1,920.0
		SLAC Mech. Fab: Machine Shop		B&H	0	0.4 wks	\$0.00	\$0.00	\$0.00	\$1,280.00	\$0.00	\$0.00	\$0.0
611	1.2.2.2.7.2	Magnet Support Assembly	SLAC	B&H	2	0.8 wks	\$0.00	\$0.00	\$1,599.04	\$1,599.04	\$319.81	\$479.71	\$2,398.5
		SLAC Mech. Fab: Assembly Tech		B&H	0	0.8 wks	\$0.00	\$0.00	\$0.00	\$1,599.04	\$0.00	\$0.00	\$0.0
612	1.2.2.2.8	Bend Magnet (VB)			0	4.4 wks	\$0.00	\$1,000.00	\$11,677.60	\$12,677.60	\$2,395.52	\$3,768.28	\$18,841.4
	1.2.2.2.8.1		SLAC	M&S			\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$265.00	
613	1.2.2.2.8.1	Support Materials	SLAC		2	0 wks							\$1,325.0
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.0
614	1.2.2.2.8.2	Support Machining	SLAC	B&H	2	2.4 wks	\$0.00	\$0.00	\$7,680.00	\$7,680.00	\$1,536.00	\$2,304.00	\$11,520.0
		SLAC Mech. Fab: Machine Shop		B&H	0	2.4 wks	\$0.00	\$0.00	\$0.00	\$7,680.00	\$0.00	\$0.00	\$0.0
1615	1.2.2.2.8.3	Magnet Support Assembly	SLAC	B&H	2	2 wks	\$0.00	\$0.00	\$3,997.60	\$3,997.60	\$799.52	\$1,199.28	\$5,996.4
		SLAC Mech. Fab: Assembly Tech		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$3,997.60	\$0.00	\$0.00	\$0.0
1616	1.2.2.2.9	Quadrupoles - 1Q5.6			0	4.8 wks	\$0.00	\$2,000.00	\$13,918.56	\$15,918.56	\$2,903.71	\$4,705.57	\$23,527.8
617	1.2.2.2.9.1	Support Materials	SLAC	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$530.00	\$2,650.0
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.0
1618	1.2.2.2.9.2	Support Machining	SLAC	B&H	2	3.6 wks	\$0.00	\$0.00	\$11,520.00	\$11,520.00	\$2,304.00	\$3,456.00	\$17,280.0
		SLAC Mech. Fab: Machine Shop		B&H	0	3.6 wks	\$0.00	\$0.00	\$0.00	\$11,520.00	\$0.00	\$0.00	\$0.0
619	1.2.2.2.9.3	·	SLAC	B&H	2	1.2 wks	\$0.00	\$0.00	\$2,398.56	\$2,398.56	\$479.71	\$719.57	\$3,597.8
013	1.2.2.2.9.5		JEAC	B&H			\$0.00	\$0.00	\$0.00	\$2,398.56	\$0.00	\$0.00	\$0.0
		SLAC Mech. Fab: Assembly Tech		В&Н	0	1.2 wks		·					
620	1.2.2.2.10	Quadrupoles - QA			0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
621	1.2.2.2.10.1	Support Materials	SLAC	ED&I	1	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
		SLAC Controls: Coordinator Assoc.		ED&I	0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
622	1.2.2.2.10.2	Support Machining	SLAC		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
623	1.2.2.2.10.3	Magnet Support Assembly	SLAC	ED&I	4	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
		SLAC AD: Mech/Vacuum Engineer		ED&I	0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
624	1.2.2.2.10.3	Magnet Support Assembly	SLAC	B&H	4	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0

ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		SLAC Mech. Fab: Assembly Tech		B&H	0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
625	1.2.2.2.10.3	Magnet Support Assembly	SLAC	ED&I	4	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
		SLAC Controls: Coordinator Assoc.		ED&I	0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
626	1.2.2.2.11	Quad Magnet QE			0	9.6 wks	\$0.00	\$3,000.00	\$27,837.12	\$30,837.12	\$5,747.42	\$9,146.14	\$45,730.
627	1.2.2.2.11.1	Support Materials	SLAC	M&S	2	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$180.00	\$795.00	\$3,975
		SLAC M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0.
628	1.2.2.2.11.2	Support Machining	SLAC	B&H	2	7.2 wks	\$0.00	\$0.00	\$23,040.00	\$23,040.00	\$4,608.00	\$6,912.00	\$34,560
		SLAC Mech. Fab: Machine Shop		B&H	0	7.2 wks	\$0.00	\$0.00	\$0.00	\$23,040.00	\$0.00	\$0.00	\$0.
629	1.2.2.2.11.3	Magnet Support Assembly	SLAC	B&H	2	2.4 wks	\$0.00	\$0.00	\$4,797.12	\$4,797.12	\$959.42	\$1,439.14	\$7,195.
		SLAC Mech. Fab: Assembly Tech		B&H	0	2.4 wks	\$0.00	\$0.00	\$0.00	\$4,797.12	\$0.00	\$0.00	\$0.
630	1.2.2.2.12	Quad Magnet 0.91Q17.72			0	6.4 wks	\$0.00	\$4,000.00	\$18,558.08	\$22,558.08	\$3,951.62	\$6,627.42	\$33,137.
631	1.2.2.2.12.1	Support Materials	SLAC	M&S	2	0 wks	\$0.00	\$4,000.00	\$0.00	\$4,000.00	\$240.00	\$1,060.00	\$5,300.
		SLAC M&S Total		M&S	0	4,000	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$0.
632	1.2.2.2.12.2	Support Machining	SLAC	B&H	2	4.8 wks	\$0.00	\$0.00	\$15,360.00	\$15,360.00	\$3,072.00	\$4,608.00	\$23,040
		SLAC Mech. Fab: Machine Shop		B&H	0	4.8 wks	\$0.00	\$0.00	\$0.00	\$15,360.00	\$0.00	\$0.00	\$0.
633	1.2.2.2.12.3	Magnet Support Assembly	SLAC	B&H	2	1.6 wks	\$0.00	\$0.00	\$3,198.08	\$3,198.08	\$639.62	\$959.42	\$4,797
		SLAC Mech. Fab: Assembly Tech		B&H	0	1.6 wks	\$0.00	\$0.00	\$0.00	\$3,198.08	\$0.00	\$0.00	\$0
634	1.2.2.2.13	Correctors			0	12 wks	\$0.00	\$10,000.00	\$33,595.20	\$43,595.20	\$7,319.04	\$12,728.56	\$63,642.
635	1.2.2.2.13.1	Support Materials	SLAC	M&S	2	0 wks	\$0.00	\$10,000.00	\$0.00	\$10,000.00	\$600.00	\$2,650.00	\$13,250.
		SLAC M&S Total		M&S	0	10,000	\$0.00	\$0.00	\$0.00	\$10,000.00	\$0.00	\$0.00	\$0.
636	1.2.2.2.13.2	Support Machining	SLAC	B&H	2	8 wks	\$0.00	\$0.00	\$25,600.00	\$25,600.00	\$5,120.00	\$7,680.00	\$38,400
		SLAC Mech. Fab: Machine Shop		B&H	0	8 wks	\$0.00	\$0.00	\$0.00	\$25,600.00	\$0.00	\$0.00	\$0.
637	1.2.2.2.13.3	Magnet Support Assembly	SLAC	B&H	2	4 wks	\$0.00	\$0.00	\$7,995.20	\$7,995.20	\$1,599.04	\$2,398.56	\$11,992.
		SLAC Mech. Fab: Assembly Tech		B&H	0	4 wks	\$0.00	\$0.00	\$0.00	\$7,995.20	\$0.00	\$0.00	\$0.
638	1.2.2.2.14	Reserved	SLAC		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
639	1.2.2.2.15	Accelerator Structures - X-band			0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
640	1.2.2.2.15.1	Support Materials	SLAC	ED&I	1	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
		SLAC Controls: Coordinator Assoc.		ED&I	0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
641	1.2.2.2.15.2	Support Machining	SLAC		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
642	1.2.2.2.15.3	Structure Support Assembly	SLAC	ED&I	4	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
		SLAC AD: Mech/Vacuum Engineer		ED&I	0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
643	1.2.2.2.15.3	Structure Support Assembly	SLAC	B&H	4	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
		SLAC Mech. Fab: Assembly Tech		B&H	0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
644	1.2.2.2.15.3	Structure Support Assembly	SLAC	ED&I	4	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
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ID 1645	CWBS 1.2.2.2.16	Task Name Accelerator Structures - Transverse	OBS	PHASE	Risk	Units 0 wks	PED (Direct) \$0.00	M&S (Direct) \$0.00	Labor (Direct)	Direct Cost \$0.00	Overhead Cost \$0.00	Contingency Cost \$0.00	Total Cost
					0								
646	1.2.2.2.16.1	Support Materials	SLAC	ED&I	1	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
		SLAC Controls: Coordinator Assoc.		ED&I	0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
647	1.2.2.2.16.2	Support Machining	SLAC		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
1648	1.2.2.2.16.3	Structure Support Assembly	SLAC	B&H	4	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
		SLAC Mech. Fab: Assembly Tech		B&H	0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
1649	1.2.2.2.16.3	Structure Support Assembly	SLAC	ED&I	4	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
		SLAC Controls: Coordinator Assoc.		ED&I	0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
1650	1.2.2.2.16.3	Structure Support Assembly	SLAC	ED&I	4	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
		SLAC Controls: Coordinator Assoc.		ED&I	0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
1651	1.2.2.2.16.3	Structure Support Assembly	SLAC	B&H	4	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
		SLAC Mech. Fab: Assembly Tech		B&H	0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
1652	1.2.2.2.16.3		SLAC	ED&I	4	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		\$0.0
.002		SLAC Controls: Coordinator Assoc.	02.10	ED&I	0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		\$0.0
				ED&I					, , , , ,				
1653	1.2.2.2.17	Tune-up Dumps			0	5.4 wks	\$0.00	\$2,000.00	\$15,838.56	\$17,838.56	\$3,287.71		\$28,520.4
1654	1.2.2.2.17.1	Support Materials	SLAC	M&S	3	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$742.00	\$2,862.0
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.0
655	1.2.2.2.17.2	Support Machining	SLAC	B&H	3	3 wks	\$0.00	\$0.00	\$9,600.00	\$9,600.00	\$1,920.00	\$4,032.00	\$15,552.0
		SLAC Mech. Fab: Machine Shop		B&H	0	3 wks	\$0.00	\$0.00	\$0.00	\$9,600.00	\$0.00	\$0.00	\$0.0
1656	1.2.2.2.17.3	Support Welding	SLAC	В&Н	3	1.2 wks	\$0.00	\$0.00	\$3,840.00	\$3,840.00	\$768.00	\$1,612.80	\$6,220.8
		SLAC Mech. Fab: Machine Shop		B&H	0	1.2 wks	\$0.00	\$0.00	\$0.00	\$3,840.00	\$0.00	\$0.00	\$0.0
657	1.2.2.2.17.4	TD Support Assembly	SLAC	B&H	3	1.2 wks	\$0.00	\$0.00	\$2,398.56	\$2,398.56	\$479.71	\$1,007.40	\$3,885.6
		SLAC Mech. Fab: Assembly Tech		B&H	0	1.2 wks	\$0.00	\$0.00	\$0.00	\$2,398.56	\$0.00	\$0.00	\$0.0
1658	1.2.2.2.18	Wire Scanners			0	21 wks	\$0.00	\$11,000.00	\$62,995.80	\$73,995.80	\$13,259.16	\$21,813.74	\$109,068.7
1659	1.2.2.2.18.1	Support Materials	SLAC	M&S	2	0 wks	\$0.00	\$11,000.00	\$0.00	\$11,000.00	\$660.00	\$2,915.00	\$14,575.0
		SLAC M&S Total		M&S	0	11,000	\$0.00	\$0.00	\$0.00	\$11,000.00	\$0.00	\$0.00	\$0.0
660	1.2.2.2.18.2		SLAC	B&H	2	14 wks	\$0.00	\$0.00	\$44,800.00	\$44,800.00	\$8,960.00		\$67,200.0
		SLAC Mech. Fab: Machine Shop		B&H	0	14 wks	\$0.00	\$0.00	\$0.00	\$44,800.00	\$0.00		\$0.0
1661	1.2.2.2.18.3	,	SLAC	B&H	2	3.5 wks	\$0.00	\$0.00	\$11,200.00	\$11,200.00	\$2,240.00		\$16,800.0
001	1.2.2.2.16.3	·· -	SLAC		-								
		SLAC Mech. Fab: Machine Shop		B&H	0	3.5 wks	\$0.00	\$0.00	\$0.00	\$11,200.00	\$0.00		\$0.0
662	1.2.2.2.18.4		SLAC	B&H	2	3.5 wks	\$0.00	\$0.00	\$6,995.80	\$6,995.80	\$1,399.16		\$10,493.7
		SLAC Mech. Fab: Assembly Tech		B&H	0	3.5 wks	\$0.00	\$0.00	\$0.00	\$6,995.80	\$0.00		\$0.0
663	1.2.2.2.19	BPMs			0	3.6 wks	\$0.00	\$1,000.00	\$11,520.00	\$12,520.00	\$2,364.00	\$1,311.00	\$16,195.0
664	1.2.2.2.19.1	BPM Support Materials	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219.0
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.0

ID		Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
1665	1.2.2.2.19.2	Support Machining	SLAC	B&H	0	3 wks	\$0.00	\$0.00	\$9,600.00	\$9,600.00	\$1,920.00	\$0.00	\$11,520.0
		SLAC Mech. Fab: Machine Shop		B&H	0	3 wks	\$0.00	\$0.00	\$0.00	\$9,600.00	\$0.00	\$0.00	\$0.0
666	1.2.2.2.19.3	BPM Support Assembly	SLAC	B&H	4	0.6 wks	\$0.00	\$0.00	\$1,920.00	\$1,920.00	\$384.00	\$1,152.00	\$3,456.0
		SLAC Mech. Fab: Machine Shop		B&H	0	0.6 wks	\$0.00	\$0.00	\$0.00	\$1,920.00	\$0.00	\$0.00	\$0.0
667	1.2.2.2.20	Toroids			0	5.6 wks	\$0.00	\$2,000.00	\$16,238.32	\$18,238.32	\$3,367.66	\$5,401.50	\$27,007.4
668	1.2.2.2.20.1	Support Materials	SLAC	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$530.00	\$2,650.0
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.0
669	1.2.2.2.20.2	Support Machining	SLAC	B&H	2	4.2 wks	\$0.00	\$0.00	\$13,440.00	\$13,440.00	\$2,688.00	\$4,032.00	\$20,160.0
		SLAC Mech. Fab: Machine Shop		B&H	0	4.2 wks	\$0.00	\$0.00	\$0.00	\$13,440.00	\$0.00	\$0.00	\$0.0
670	1.2.2.2.20.3	Toro Support Assembly	SLAC	B&H	2	1.4 wks	\$0.00	\$0.00	\$2,798.32	\$2,798.32	\$559.66	\$839.50	\$4,197.4
		SLAC Mech. Fab: Assembly Tech		B&H	0	1.4 wks	\$0.00	\$0.00	\$0.00	\$2,798.32	\$0.00	\$0.00	\$0.0
671	1.2.2.2.21	Profile Monitor			0	4 wks	\$0.00	\$2,000.00	\$12,800.00	\$14,800.00	\$2,680.00	\$4,370.00	\$21,850.0
672	1.2.2.2.21.1	Profile Monitor Support Materials	SLAC	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$530.00	\$2,650.0
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.0
673	1.2.2.2.21.2	Support Machining	SLAC	B&H	2	2.4 wks	\$0.00	\$0.00	\$7,680.00	\$7,680.00	\$1,536.00	\$2,304.00	\$11,520.0
		SLAC Mech. Fab: Machine Shop		B&H	0	2.4 wks	\$0.00	\$0.00	\$0.00	\$7,680.00	\$0.00	\$0.00	\$0.
674	1.2.2.2.21.3	Profile Monitor Support Assembly	SLAC	B&H	2	1.6 wks	\$0.00	\$0.00	\$5,120.00	\$5,120.00	\$1,024.00	\$1,536.00	\$7,680.
		SLAC Mech. Fab: Machine Shop		B&H	0	1.6 wks	\$0.00	\$0.00	\$0.00	\$5,120.00	\$0.00	\$0.00	\$0.0
675	1.2.2.2.22	Collimators			0	8 wks	\$0.00	\$4,000.00	\$25,600.00	\$29,600.00	\$5,360.00	\$4,476.00	\$39,436.0
676	1.2.2.2.22.1	Collimator Support Materials	SLAC	M&S	1	0 wks	\$0.00	\$4,000.00	\$0.00	\$4,000.00	\$240.00	\$636.00	\$4,876.
		SLAC M&S Total		M&S	0	4,000	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$0.
677	1.2.2.2.22.2	Support Machining	SLAC	B&H	0	6 wks	\$0.00	\$0.00	\$19,200.00	\$19,200.00	\$3,840.00	\$0.00	\$23,040.0
		SLAC Mech. Fab: Machine Shop		B&H	0	6 wks	\$0.00	\$0.00	\$0.00	\$19,200.00	\$0.00	\$0.00	\$0.0
678	1.2.2.2.22.3	Collimator Support Assembly	SLAC	B&H	4	2 wks	\$0.00	\$0.00	\$6,400.00	\$6,400.00	\$1,280.00	\$3,840.00	\$11,520.0
		SLAC Mech. Fab: Machine Shop		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$6,400.00	\$0.00	\$0.00	\$0.0
679	1.2.2.2.23	DL2 E-O Diagnostic			0	5.6 wks	\$0.00	\$10,000.00	\$14,556.64	\$24,556.64	\$3,511.33	\$9,823.79	\$37,891.7
680	1.2.2.2.23.1	E-O Support Materials	SLAC	M&S	3	0 wks	\$0.00	\$10,000.00	\$0.00	\$10,000.00	\$600.00	\$3,710.00	\$14,310.0
		SLAC M&S Total		M&S	0	10,000	\$0.00	\$0.00	\$0.00	\$10,000.00	\$0.00	\$0.00	\$0.0
681	1.2.2.2.23.2	Support Machining	SLAC	B&H	3	2.8 wks	\$0.00	\$0.00	\$8,960.00	\$8,960.00	\$1,792.00	\$3,763.20	\$14,515.
		SLAC Mech. Fab: Machine Shop		B&H	0	2.8 wks	\$0.00	\$0.00	\$0.00	\$8,960.00	\$0.00	\$0.00	\$0.
682	1.2.2.2.23.3	E-O Support Assembly	SLAC	B&H	3	2.8 wks	\$0.00	\$0.00	\$5,596.64	\$5,596.64	\$1,119.33	\$2,350.59	\$9,066.
		SLAC Mech. Fab: Assembly Tech		B&H	0	2.8 wks	\$0.00	\$0.00	\$0.00	\$5,596.64	\$0.00	\$0.00	\$0.0
683	1.2.2.2.24	Bunch Length			0	4 wks	\$0.00	\$3,000.00	\$12,800.00	\$15,800.00	\$2,740.00	\$4,635.00	\$23,175.0
684	1.2.2.2.24.1	BL Support Materials	SLAC	M&S	2	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$180.00	\$795.00	\$3,975.0
		SLAC M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0.0

ID		Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
1685	1.2.2.2.24.2	Support Machining	SLAC	B&H	2	2 wks	\$0.00	\$0.00	\$6,400.00	\$6,400.00	\$1,280.00	\$1,920.00	\$9,600.0
		SLAC Mech. Fab: Machine Shop		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$6,400.00	\$0.00	\$0.00	\$0.0
686	1.2.2.2.24.3	BL Support Assembly	SLAC	B&H	2	2 wks	\$0.00	\$0.00	\$6,400.00	\$6,400.00	\$1,280.00	\$1,920.00	\$9,600.0
		SLAC Mech. Fab: Machine Shop		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$6,400.00	\$0.00	\$0.00	\$0.0
687	1.2.2.2.25	Dumpline Bend Magnets			0	16.8 wks	\$0.00	\$15,000.00	\$43,669.92	\$58,669.92	\$9,633.98	\$23,906.37	\$92,210.2
688	1.2.2.2.25.1	Support Materials	SLAC	M&S	3	0 wks	\$0.00	\$15,000.00	\$0.00	\$15,000.00	\$900.00	\$5,565.00	\$21,465.0
		SLAC M&S Total		M&S	0	15,000	\$0.00	\$0.00	\$0.00	\$15,000.00	\$0.00	\$0.00	\$0.0
689	1.2.2.2.25.2	Support Machining	SLAC	B&H	3	8.4 wks	\$0.00	\$0.00	\$26,880.00	\$26,880.00	\$5,376.00	\$11,289.60	\$43,545.6
		SLAC Mech. Fab: Machine Shop		B&H	0	8.4 wks	\$0.00	\$0.00	\$0.00	\$26,880.00	\$0.00	\$0.00	\$0.0
690	1.2.2.2.25.3	Magnet Support Assembly	SLAC	B&H	3	8.4 wks	\$0.00	\$0.00	\$16,789.92	\$16,789.92	\$3,357.98	\$7,051.77	\$27,199.6
		SLAC Mech. Fab: Assembly Tech		B&H	0	8.4 wks	\$0.00	\$0.00	\$0.00	\$16,789.92	\$0.00	\$0.00	\$0.0
691	1.2.2.3	Vacuum			0	210.03 wks	\$0.00	\$371,000.00	\$571,750.66	\$942,750.66	\$136,610.13	\$360,473.35	\$1,439,834.1
692	1.2.2.3.1	BC1 Vacuum			0	34.8 wks	\$0.00	\$94,000.00	\$108,442.60	\$202,442.60	\$27,328.52	\$79,652.35	\$309,423.4
693	1.2.2.3.1.1	Chamber Materials	SLAC	M&S	3	0 wks	\$0.00	\$94,000.00	\$0.00	\$94,000.00	\$5,640.00	\$34,874.00	\$134,514.0
		SLAC M&S Total		M&S	0	94,000	\$0.00	\$0.00	\$0.00	\$94,000.00	\$0.00	\$0.00	\$0.0
694	1.2.2.3.1.2	Chamber Machining	SLAC	B&H	3	26.5 wks	\$0.00	\$0.00	\$84,800.00	\$84,800.00	\$16,960.00	\$35,616.00	\$137,376.
		SLAC Mech. Fab: Machine Shop		B&H	0	26.5 wks	\$0.00	\$0.00	\$0.00	\$84,800.00	\$0.00	\$0.00	\$0.0
695	1.2.2.3.1.3	Chamber QA	SLAC	B&H	3	1.6 wks	\$0.00	\$0.00	\$3,648.00	\$3,648.00	\$729.60	\$1,532.16	\$5,909.
		SLAC Metrology:Eng.& Surveyors		B&H	0	1.6 wks	\$0.00	\$0.00	\$0.00	\$3,648.00	\$0.00	\$0.00	\$0.0
696	1.2.2.3.1.4	Chamber Plating Cleaning	SLAC	B&H	3	2.2 wks	\$0.00	\$0.00	\$11,000.00	\$11,000.00	\$2,200.00	\$4,620.00	\$17,820.
		SLAC Mech. Fab: Plating & Cleaning		B&H	3	2.2 wks	\$0.00	\$0.00	\$0.00	\$11,000.00	\$0.00	\$0.00	\$0.
697	1.2.2.3.1.5	Chamber Welding	SLAC	B&H	2	3.2 wks	\$0.00	\$0.00	\$6,396.16	\$6,396.16	\$1,279.23	\$1,918.85	\$9,594.
		SLAC Mech. Fab: Assembly Tech		B&H	0	3.2 wks	\$0.00	\$0.00	\$0.00	\$6,396.16	\$0.00	\$0.00	\$0.0
698	1.2.2.3.1.6	Chamber Vac Process	SLAC	B&H	3	1.3 wks	\$0.00	\$0.00	\$2,598.44	\$2,598.44	\$519.69	\$1,091.34	\$4,209.
		SLAC Mech. Fab: Assembly Tech		B&H	0	1.3 wks	\$0.00	\$0.00	\$0.00	\$2,598.44	\$0.00	\$0.00	\$0.0
699	1.2.2.3.2	BC2 Vacuum			0	34.8 wks	\$0.00	\$94,000.00	\$108,442.60	\$202,442.60	\$27,328.52	\$80,419.89	\$310,191.0
700	1.2.2.3.2.1	Chamber Materials	SLAC	M&S	3	0 wks	\$0.00	\$94,000.00	\$0.00	\$94,000.00	\$5,640.00	\$34,874.00	\$134,514.
		SLAC M&S Total		M&S	0	94,000	\$0.00	\$0.00	\$0.00	\$94,000.00	\$0.00	\$0.00	\$0.0
701	1.2.2.3.2.2	Chamber Machining	SLAC	B&H	3	26.5 wks	\$0.00	\$0.00	\$84,800.00	\$84,800.00	\$16,960.00	\$35,616.00	\$137,376.
		SLAC Mech. Fab: Machine Shop		B&H	0	26.5 wks	\$0.00	\$0.00	\$0.00	\$84,800.00	\$0.00	\$0.00	\$0.
702	1.2.2.3.2.3	Chamber QA	SLAC	B&H	3	1.6 wks	\$0.00	\$0.00	\$3,648.00	\$3,648.00	\$729.60	\$1,532.16	\$5,909.
		SLAC Metrology:Eng.& Surveyors		B&H	0	1.6 wks	\$0.00	\$0.00	\$0.00	\$3,648.00	\$0.00	\$0.00	\$0.
703	1.2.2.3.2.4	Chamber Plating Cleaning	SLAC	B&H	3	2.2 wks	\$0.00	\$0.00	\$11,000.00	\$11,000.00	\$2,200.00	\$4,620.00	\$17,820.
		SLAC Mech. Fab: Plating & Cleaning		B&H	0	2.2 wks	\$0.00	\$0.00	\$0.00	\$11,000.00	\$0.00	\$0.00	\$0.
704	1.2.2.3.2.5	Chamber Welding	SLAC	B&H	3	3.2 wks	\$0.00	\$0.00	\$6,396.16	\$6.396.16	\$1,279,23	\$2.686.39	\$10,361.

ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		SLAC Mech. Fab: Assembly Tech		B&H	0	3.2 wks	\$0.00	\$0.00	\$0.00	\$6,396.16	\$0.00	\$0.00	\$0.
05	1.2.2.3.2.6	Chamber Vac Process	SLAC	B&H	3	1.3 wks	\$0.00	\$0.00	\$2,598.44	\$2,598.44	\$519.69	\$1,091.34	\$4,209
		SLAC Mech. Fab: Assembly Tech		B&H	0	1.3 wks	\$0.00	\$0.00	\$0.00	\$2,598.44	\$0.00	\$0.00	\$0
'06	1.2.2.3.3	Accelerator Vacuum Chambers			0	34.73 wks	\$0.00	\$12,000.00	\$100,929.02	\$112,929.02	\$20,905.80	\$33,458.71	\$167,293
707	1.2.2.3.3.1	Chamber Materials	SLAC	M&S	2	0 wks	\$0.00	\$12,000.00	\$0.00	\$12,000.00	\$720.00	\$3,180.00	\$15,900
		SLAC M&S Total		M&S	0	12,000	\$0.00	\$0.00	\$0.00	\$12,000.00	\$0.00	\$0.00	\$0
708	1.2.2.3.3.2	Chamber Machining	SLAC	B&H	2	16.4 wks	\$0.00	\$0.00	\$52,480.00	\$52,480.00	\$10,496.00	\$15,744.00	\$78,720
		SLAC Mech. Fab: Machine Shop		B&H	0	16.4 wks	\$0.00	\$0.00	\$0.00	\$52,480.00	\$0.00	\$0.00	\$0
'09	1.2.2.3.3.3	Chamber QA	SLAC	B&H	2	3.58 wks	\$0.00	\$0.00	\$8,162.40	\$8,162.40	\$1,632.48	\$2,448.72	\$12,243
		SLAC Metrology:Eng.& Surveyors		B&H	0	3.58 wks	\$0.00	\$0.00	\$0.00	\$8,162.40	\$0.00	\$0.00	\$0
710	1.2.2.3.3.4	Chamber Plating Cleaning	SLAC	B&H	2	3.6 wks	\$0.00	\$0.00	\$18,000.00	\$18,000.00	\$3,600.00	\$5,400.00	\$27,000
		SLAC Mech. Fab: Plating & Cleaning		B&H	0	3.6 wks	\$0.00	\$0.00	\$0.00	\$18,000.00	\$0.00	\$0.00	\$0
11	1.2.2.3.3.5	Chamber Welding	SLAC	B&H	2	4.75 wks	\$0.00	\$0.00	\$9,494.30	\$9,494.30	\$1,898.86	\$2,848.29	\$14,24
		SLAC Mech. Fab: Assembly Tech		B&H	0	4.75 wks	\$0.00	\$0.00	\$0.00	\$9,494.30	\$0.00	\$0.00	\$(
12	1.2.2.3.3.6		SLAC	B&H	2	6.4 wks	\$0.00	\$0.00	\$12,792.32	\$12,792.32	\$2,558.46	\$3,837.70	\$19,18
12	1.2.2.3.3.0	SLAC Mech. Fab: Assembly Tech	SLAC	B&H	0	6.4 wks	\$0.00	\$0.00	\$0.00	\$12,792.32	\$0.00	\$0.00	\$13,10
				Б&П								.	
13	1.2.2.3.4	Accelerator Vacuum Bellows			0	5.7 wks	\$0.00	\$11,000.00	\$16,549.24	\$27,549.24	\$3,969.85	\$7,879.77	\$39,39
14	1.2.2.3.4.1	Bellows Modules, Purchased	SLAC	M&S	2	0 wks	\$0.00	\$8,000.00	\$0.00	\$8,000.00	\$480.00	\$2,120.00	\$10,60
		SLAC M&S Total		M&S	0	8,000	\$0.00	\$0.00	\$0.00	\$8,000.00	\$0.00	\$0.00	\$
15	1.2.2.3.4.2	Bellows Materials	SLAC	M&S	2	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$180.00	\$795.00	\$3,97
		SLAC M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$
'16	1.2.2.3.4.3	Bellows Machining	SLAC	B&H	2	2.2 wks	\$0.00	\$0.00	\$7,040.00	\$7,040.00	\$1,408.00	\$2,112.00	\$10,56
		SLAC Mech. Fab: Machine Shop		B&H	0	2.2 wks	\$0.00	\$0.00	\$0.00	\$7,040.00	\$0.00	\$0.00	\$
17	1.2.2.3.4.4	Bellows QA	SLAC	B&H	2	0.4 wks	\$0.00	\$0.00	\$912.00	\$912.00	\$182.40	\$273.60	\$1,36
		SLAC Metrology:Eng.& Surveyors		B&H	0	0.4 wks	\$0.00	\$0.00	\$0.00	\$912.00	\$0.00	\$0.00	\$
18	1.2.2.3.4.5	Bellows Plating Cleaning	SLAC	B&H	2	0.8 wks	\$0.00	\$0.00	\$4,000.00	\$4,000.00	\$800.00	\$1,200.00	\$6,00
		SLAC Mech. Fab: Plating & Cleaning		B&H	0	0.8 wks	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$6
19	1.2.2.3.4.6	Bellows Welding	SLAC	B&H	2	0.8 wks	\$0.00	\$0.00	\$1,599.04	\$1,599.04	\$319.81	\$479.71	\$2,39
		SLAC Mech. Fab: Assembly Tech		B&H	0	0.8 wks	\$0.00	\$0.00	\$0.00	\$1,599.04	\$0.00	\$0.00	\$
'20	1.2.2.3.4.7	Bellows Vac Process	SLAC	B&H	2	1.5 wks	\$0.00	\$0.00	\$2,998.20	\$2,998.20	\$599.64	\$899.46	\$4,49
		SLAC Mech. Fab: Assembly Tech		B&H	0	1.5 wks	\$0.00	\$0.00	\$0.00	\$2,998.20	\$0.00	\$0.00	\$
21	1.2.2.3.5	Dumpline Vacuum			0	100 wks	\$0.00	\$160,000.00	\$237,387.20	\$397,387.20	\$57,077.44	\$159,062.62	\$613,52
722	1.2.2.3.5.1	Bellows Modules, Purchased	SLAC	M&S	3	0 wks	\$0.00	\$10,000.00	\$0.00	\$10,000.00	\$600.00	\$3,710.00	\$14,31
	1.2.2.0.0.1	SLAC M&S Total	SENO	M&S	0	10,000	\$0.00	\$0.00	\$0.00	\$10,000.00	\$0.00	\$0.00	\$14,51
												.	
23	1.2.2.3.5.2	Chamber Materials	SLAC	M&S	3	0 wks	\$0.00	\$150,000.00	\$0.00	\$150,000.00	\$9,000.00	\$55,650.00	\$214,65

ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		SLAC M&S Total		M&S	0	150,000	\$0.00	\$0.00	\$0.00	\$150,000.00	\$0.00	\$0.00	\$0.0
724	1.2.2.3.5.3	Chamber Machining	SLAC	B&H	3	48 wks	\$0.00	\$0.00	\$109,440.00	\$109,440.00	\$21,888.00	\$45,964.80	\$177,292.
		SLAC Metrology:Eng.& Surveyors		B&H	0	48 wks	\$0.00	\$0.00	\$0.00	\$109,440.00	\$0.00	\$0.00	\$0.
725	1.2.2.3.5.4	Chamber QA	SLAC	B&H	3	8 wks	\$0.00	\$0.00	\$40,000.00	\$40,000.00	\$8,000.00	\$16,800.00	\$64,800
		SLAC Mech. Fab: Plating & Cleaning		B&H	0	8 wks	\$0.00	\$0.00	\$0.00	\$40,000.00	\$0.00	\$0.00	\$0.
726	1.2.2.3.5.5	Chamber Plating Cleaning	SLAC	B&H	3	12 wks	\$0.00	\$0.00	\$23,985.60	\$23,985.60	\$4,797.12	\$10,073.95	\$38,856
		SLAC Mech. Fab: Assembly Tech		B&H	0	12 wks	\$0.00	\$0.00	\$0.00	\$23,985.60	\$0.00	\$0.00	\$0
727	1.2.2.3.5.6	Chamber Welding	SLAC	B&H	3	16 wks	\$0.00	\$0.00	\$31,980.80	\$31,980.80	\$6,396.16	\$13,431.94	\$51,808
		SLAC Mech. Fab: Assembly Tech		B&H	0	16 wks	\$0.00	\$0.00	\$0.00	\$31,980.80	\$0.00	\$0.00	\$0
728	1.2.2.3.5.7	Chamber Vac Process	SLAC	B&H	3	16 wks	\$0.00	\$0.00	\$31,980.80	\$31,980.80	\$6,396.16	\$13,431.94	\$51,808
		SLAC Mech. Fab: Assembly Tech		B&H	0	16 wks	\$0.00	\$0.00	\$0.00	\$31,980.80	\$0.00	\$0.00	\$0.
729	1.2.2.4	Diagnostics			0	244 wks	\$0.00	\$271,000.00	\$652,573.28	\$923,573.28	\$146,774.66	\$261,214.62	\$1,331,562
730	1.2.2.4.1	Tune-up Dumps			0	24.6 wks	\$0.00	\$15,000.00	\$67,861.20	\$82,861.20	\$14,472.24	\$11,931.70	\$109,265.
731	1.2.2.4.1.1	TD Materials	SLAC	M&S	1	0 wks	\$0.00	\$15,000.00	\$0.00	\$15,000.00	\$900.00	\$2,385.00	\$18,285
		SLAC M&S Total		M&S	0	15,000	\$0.00	\$0.00	\$0.00	\$15,000.00	\$0.00	\$0.00	\$0
732	1.2.2.4.1.2	TD Part Machining	SLAC	B&H	0	12 wks	\$0.00	\$0.00	\$38,400.00	\$38,400.00	\$7,680.00	\$0.00	\$46,080
		SLAC Mech. Fab: Machine Shop		B&H	0	12 wks	\$0.00	\$0.00	\$0.00	\$38,400.00	\$0.00	\$0.00	\$0
733	1.2.2.4.1.3	TD Parts QA	SLAC	B&H	4	1.8 wks	\$0.00	\$0.00	\$4,104.00	\$4,104.00	\$820.80	\$2,462.40	\$7,387
		SLAC Metrology:Eng.& Surveyors		B&H	0	1.8 wks	\$0.00	\$0.00	\$0.00	\$4,104.00	\$0.00	\$0.00	\$0
734	1.2.2.4.1.4	TD Plating Cleaning	SLAC	B&H	4	1.2 wks	\$0.00	\$0.00	\$6,000.00	\$6,000.00	\$1,200.00	\$3,600.00	\$10,800
		SLAC Mech. Fab: Plating & Cleaning		B&H	0	1.2 wks	\$0.00	\$0.00	\$0.00	\$6,000.00	\$0.00	\$0.00	\$0
735	1.2.2.4.1.5	TD Brazing/Welding	SLAC	B&H	1	6 wks	\$0.00	\$0.00	\$11,992.80	\$11,992.80	\$2,398.56	\$2,158.70	\$16,550
		SLAC Mech. Fab: Assembly Tech		B&H	0	6 wks	\$0.00	\$0.00	\$0.00	\$11,992.80	\$0.00	\$0.00	\$0
736	1.2.2.4.1.6	TD Assembly	SLAC	B&H	1	3 wks	\$0.00	\$0.00	\$5,996.40	\$5,996.40	\$1,199.28	\$1,079.35	\$8,275
		SLAC Mech. Fab: Assembly Tech		B&H	0	3 wks	\$0.00	\$0.00	\$0.00	\$5,996.40	\$0.00	\$0.00	\$0
737	1.2.2.4.1.7	TD Fiducialize	SLAC	B&H	1	0.6 wks	\$0.00	\$0.00	\$1,368.00	\$1,368.00	\$273.60	\$246.24	\$1,887
		SLAC Metrology:Eng.& Surveyors		B&H	0	0.6 wks	\$0.00	\$0.00	\$0.00	\$1,368.00	\$0.00	\$0.00	\$0
738	1.2.2.4.2	Wire Scanners			0	115.5 wks	\$0.00	\$8,000.00	\$320,518.80	\$328,518.80	\$64,583.76	\$98,275.64	\$491,378
739	1.2.2.4.2.1	WS Materials	SLAC	M&S	2	0 wks	\$0.00	\$8,000.00	\$0.00	\$8,000.00	\$480.00	\$2,120.00	\$10,600
		SLAC M&S Total		M&S	0	8,000	\$0.00	\$0.00	\$0.00	\$8,000.00	\$0.00	\$0.00	\$0
40	1.2.2.4.2.2	WS Part Machining	SLAC	B&H	2	56 wks	\$0.00	\$0.00	\$179,200.00	\$179,200.00	\$35,840.00	\$53,760.00	\$268,800
		SLAC Mech. Fab: Machine Shop		B&H	0	56 wks	\$0.00	\$0.00	\$0.00	\$179,200.00	\$0.00	\$0.00	\$0
741	1.2.2.4.2.3	WS Parts QA	SLAC	B&H	2	7 wks	\$0.00	\$0.00	\$15,960.00	\$15,960.00	\$3,192.00	\$4,788.00	\$23,940
		SLAC Metrology:Eng.& Surveyors		B&H	0	7 wks	\$0.00	\$0.00	\$0.00	\$15,960.00	\$0.00	\$0.00	\$0
742	1.2.2.4.2.4	WS Plating Cleaning	SLAC	B&H	2	7 wks	\$0.00	\$0.00	\$35,000.00	\$35,000.00	\$7,000.00	\$10,500.00	\$52,500

ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Continuous Cont	Total Cost
טו	CWBS	SLAC Mech. Fab: Plating & Cleaning	UBS	B&H	0	7 wks	\$0.00	\$0.00	\$0.00	\$35,000.00	\$0.00	Contingency Cost \$0.00	\$0.0
743	1.2.2.4.2.5	WS Brazing/Welding	SLAC	B&H	2	14 wks	\$0.00	\$0.00	\$27,983.20	\$27,983.20	\$5,596.64	\$8,394.96	\$41,974.
		SLAC Mech. Fab: Assembly Tech		B&H	0	14 wks	\$0.00	\$0.00	\$0.00	\$27,983.20	\$0.00	\$0.00	\$0.
744	1.2.2.4.2.6	WS Coating	SLAC	B&H	2	7 wks	\$0.00	\$0.00	\$12,420.80	\$12,420.80	\$2,484.16	\$3,726.24	\$18,631
		SLAC Klystron: Technician		B&H	0	7 wks	\$0.00	\$0.00	\$0.00	\$12,420.80	\$0.00	\$0.00	\$0.
745	1.2.2.4.2.7	WS Assembly	SLAC	B&H	2	14 wks	\$0.00	\$0.00	\$27,983.20	\$27,983.20	\$5,596.64	\$8,394.96	\$41,974
		SLAC Mech. Fab: Assembly Tech		B&H	0	14 wks	\$0.00	\$0.00	\$0.00	\$27,983.20	\$0.00	\$0.00	\$0
746	1.2.2.4.2.8	WS Fiducialize	SLAC	B&H	2	3.5 wks	\$0.00	\$0.00	\$7,980.00	\$7,980.00	\$1,596.00	\$2,394.00	\$11,970
		SLAC Metrology:Eng.& Surveyors		B&H	0	3.5 wks	\$0.00	\$0.00	\$0.00	\$7,980.00	\$0.00	\$0.00	\$0.
747	1.2.2.4.2.9	WS Vac Process	SLAC	B&H	2	7 wks	\$0.00	\$0.00	\$13,991.60	\$13,991.60	\$2,798.32	\$4,197.48	\$20,987
		SLAC Mech. Fab: Assembly Tech		B&H	0	7 wks	\$0.00	\$0.00	\$0.00	\$13,991.60	\$0.00	\$0.00	\$0.
748	1.2.2.4.3	BPMs			0	17.7 wks	\$0.00	\$15,000.00	\$52,692.00	\$67,692.00	\$11,438.40	\$10,960.20	\$90,090.
749	1.2.2.4.3.1	BPM Materials	SLAC	M&S	1	0 wks	\$0.00	\$15,000.00	\$0.00	\$15,000.00	\$900.00	\$2,385.00	\$18,285
		SLAC M&S Total		M&S	0	15,000	\$0.00	\$0.00	\$0.00	\$15,000.00	\$0.00	\$0.00	\$0.
750	1.2.2.4.3.2	Machining	SLAC	B&H	0	12 wks	\$0.00	\$0.00	\$38,400.00	\$38,400.00	\$7,680.00	\$0.00	\$46,080
\dashv		SLAC Mech. Fab: Machine Shop		B&H	0	12 wks	\$0.00	\$0.00	\$0.00	\$38,400.00	\$0.00	\$0.00	\$0
751	1.2.2.4.3.3	BPM Assembly	SLAC	B&H	4	4.5 wks	\$0.00	\$0.00	\$10,260.00	\$10,260.00	\$2,052.00	\$6,156.00	\$18,468
\neg		SLAC Metrology:Eng.& Surveyors		B&H	0	4.5 wks	\$0.00	\$0.00	\$0.00	\$10,260.00	\$0.00	\$0.00	\$0
752	1.2.2.4.3.4	Procurement, manufacture and assembly supervision	SLAC	ED&I	4	1.2 wks	\$0.00	\$0.00	\$4,032.00	\$4,032.00	\$806.40	\$2,419.20	\$7,257
		SLAC AD: Mech/Vacuum Engineer		ED&I	0	1.2 wks	\$0.00	\$0.00	\$0.00	\$4,032.00	\$0.00	\$0.00	\$0
753	1.2.2.4.4	Toroids			0	22.4 wks	\$0.00	\$25,000.00	\$55,546.40	\$80,546.40	\$12,609.28	\$23,288.92	\$116,444
754	1.2.2.4.4.1	Toro Materials	SLAC	M&S	2	0 wks	\$0.00	\$25,000.00	\$0.00	\$25,000.00	\$1,500.00	\$6,625.00	\$33,125
\neg		SLAC M&S Total		M&S	0	25,000	\$0.00	\$0.00	\$0.00	\$25,000.00	\$0.00	\$0.00	\$0.
755	1.2.2.4.4.2	Toro Part Machining	SLAC	B&H	2	5.6 wks	\$0.00	\$0.00	\$17,920.00	\$17,920.00	\$3,584.00	\$5,376.00	\$26,880.
\neg		SLAC Mech. Fab: Machine Shop		B&H	0	5.6 wks	\$0.00	\$0.00	\$0.00	\$17,920.00	\$0.00	\$0.00	\$0.
756	1.2.2.4.4.3	Toro Parts QA	SLAC	B&H	2	2.8 wks	\$0.00	\$0.00	\$6,384.00	\$6,384.00	\$1,276.80	\$1,915.20	\$9,576
		SLAC Metrology:Eng.& Surveyors		B&H	0	2.8 wks	\$0.00	\$0.00	\$0.00	\$6,384.00	\$0.00	\$0.00	\$0.
757	1.2.2.4.4.4	Toro Plating Cleaning	SLAC	В&Н	2	1.4 wks	\$0.00	\$0.00	\$7,000.00	\$7,000.00	\$1,400.00	\$2,100.00	\$10,500
\neg		SLAC Mech. Fab: Plating & Cleaning		B&H	0	1.4 wks	\$0.00	\$0.00	\$0.00	\$7,000.00	\$0.00	\$0.00	\$0
758	1.2.2.4.4.5	Toro Brazing/Welding	SLAC	B&H	2	4.2 wks	\$0.00	\$0.00	\$8,394.96	\$8,394.96	\$1,678.99	\$2,518.49	\$12,592
\dashv		SLAC Mech. Fab: Assembly Tech		B&H	0	4.2 wks	\$0.00	\$0.00	\$0.00	\$8,394.96	\$0.00	\$0.00	\$0
759	1.2.2.4.4.6	Toro Assembly	SLAC	B&H	2	1.4 wks	\$0.00	\$0.00	\$2,798.32	\$2,798.32	\$559.66	\$839.50	\$4,197
-		SLAC Mech. Fab: Assembly Tech		B&H	0	1.4 wks	\$0.00	\$0.00	\$0.00	\$2,798.32	\$0.00	\$0.00	\$0
760	1.2.2.4.4.7	Toro Coating	SLAC	B&H	2	4.2 wks	\$0.00	\$0.00	\$7,452.48	\$7,452.48	\$1,490.50	\$2,235.74	\$11,178
		SLAC Klystron: Technician		B&H	0	4.2 wks	\$0.00	\$0.00	\$0.00	\$7,452.48	\$0.00	\$0.00	\$0

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ID		Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
761	1.2.2.4.4.8	Toro Vac Process	SLAC	B&H	2	2.8 wks	\$0.00	\$0.00	\$5,596.64	\$5,596.64	\$1,119.33	\$1,678.99	\$8,394.
		SLAC Mech. Fab: Assembly Tech		B&H	0	2.8 wks	\$0.00	\$0.00	\$0.00	\$5,596.64	\$0.00	\$0.00	\$0.
762	1.2.2.4.5	Profile Monitor			0	14.4 wks	\$0.00	\$24,000.00	\$44,351.04	\$68,351.04	\$10,310.21	\$27,531.44	\$106,192.
763	1.2.2.4.5.1	Prof Materials	SLAC	M&S	3	0 wks	\$0.00	\$24,000.00	\$0.00	\$24,000.00	\$1,440.00	\$8,904.00	\$34,344
		SLAC M&S Total		M&S	0	24,000	\$0.00	\$0.00	\$0.00	\$24,000.00	\$0.00	\$0.00	\$0.
764	1.2.2.4.5.2	Prof Part Machining	SLAC	B&H	3	6.4 wks	\$0.00	\$0.00	\$20,480.00	\$20,480.00	\$4,096.00	\$8,601.60	\$33,177
		SLAC Mech. Fab: Machine Shop		B&H	0	6.4 wks	\$0.00	\$0.00	\$0.00	\$20,480.00	\$0.00	\$0.00	\$0
765	1.2.2.4.5.3	Prof Parts QA	SLAC	B&H	3	1.6 wks	\$0.00	\$0.00	\$3,648.00	\$3,648.00	\$729.60	\$1,532.16	\$5,909
		SLAC Metrology:Eng.& Surveyors		B&H	0	1.6 wks	\$0.00	\$0.00	\$0.00	\$3,648.00	\$0.00	\$0.00	\$0
766	1.2.2.4.5.4	Prof Plating Cleaning	SLAC	B&H	3	0.8 wks	\$0.00	\$0.00	\$4,000.00	\$4,000.00	\$800.00	\$1,680.00	\$6,480
		SLAC Mech. Fab: Plating & Cleaning		B&H	0	0.8 wks	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$0
767	1.2.2.4.5.5		SLAC	B&H	3	2.4 wks	\$0.00	\$0.00	\$7,680.00	\$7,680.00	\$1,536.00	\$3,225,60	\$12,441
	112.12.110.0	SLAC Mech. Fab: Machine Shop	02.10	B&H	0	2.4 wks	\$0.00	\$0.00	\$0.00	\$7,680.00	\$0.00	\$0.00	\$0
768	1.2.2.4.5.6	Prof Assembly	SLAC	B&H	3	1.6 wks	\$0.00	\$0.00	\$5,120.00	\$5,120.00	\$1,024.00	\$2,150.40	\$8,294
700	1.2.2.4.5.6	•	SLAC				,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,						
		SLAC Mech. Fab: Machine Shop		B&H	0	1.6 wks	\$0.00	\$0.00	\$0.00	\$5,120.00	\$0.00	\$0.00	\$0
769	1.2.2.4.5.7	WS Fiducialize	SLAC	B&H	3	0.8 wks	\$0.00	\$0.00	\$1,824.00	\$1,824.00	\$364.80	\$766.08	\$2,954
		SLAC Metrology:Eng.& Surveyors		B&H	0	0.8 wks	\$0.00	\$0.00	\$0.00	\$1,824.00	\$0.00	\$0.00	\$0
770	1.2.2.4.5.8	Prof Vac Process	SLAC	B&H	3	0.8 wks	\$0.00	\$0.00	\$1,599.04	\$1,599.04	\$319.81	\$671.60	\$2,590
		SLAC Mech. Fab: Assembly Tech		B&H	0	0.8 wks	\$0.00	\$0.00	\$0.00	\$1,599.04	\$0.00	\$0.00	\$0
771	1.2.2.4.6	E-O Diagnostics			0	28.4 wks	\$0.00	\$154,000.00	\$65,013.12	\$219,013.12	\$22,242.62	\$67,299.51	\$308,555
772	1.2.2.4.6.1	E-0 Physics	SLAC	ED&I	2	2 wks	\$0.00	\$0.00	\$6,800.00	\$6,800.00	\$1,360.00	\$2,040.00	\$10,200
		SLAC Physicist -Scientist		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$6,800.00	\$0.00	\$0.00	\$0
773	1.2.2.4.6.2	E-O Optics	SLAC	M&S	2	0 wks	\$0.00	\$47,000.00	\$0.00	\$47,000.00	\$2,820.00	\$12,455.00	\$62,275
		SLAC M&S Total		M&S	0	47,000	\$0.00	\$0.00	\$0.00	\$47,000.00	\$0.00	\$0.00	\$0
774	1.2.2.4.6.3	E-O Instruments	SLAC	M&S	2	0 wks	\$0.00	\$76,000.00	\$0.00	\$76,000.00	\$4,560.00	\$20,140.00	\$100,700
		SLAC M&S Total		M&S	0	76,000	\$0.00	\$0.00	\$0.00	\$76,000.00	\$0.00	\$0.00	\$0
775	1.2.2.4.6.4	E-O Vacuum	SLAC	M&S	2	0 wks	\$0.00	\$31,000.00	\$0.00	\$31,000.00	\$1,860.00	\$8,215.00	\$41,075
		SLAC M&S Total		M&S	0	31,000	\$0.00	\$0.00	\$0.00	\$31,000.00	\$0.00	\$0.00	\$0
776	1.2.2.4.6.5	E-O Assembly	SLAC	B&H	3	22.4 wks	\$0.00	\$0.00	\$44,773.12	\$44,773.12	\$8,954.62	\$18,804.71	\$72,532
	112.12.110.0	·	02.10	B&H		22.4 wks	\$0.00	\$0.00	\$0.00	\$44,773.12	\$0.00	\$0.00	\$0
		SLAC Mech. Fab: Assembly Tech			0								
777	1.2.2.4.6.6	Proc., Man. & Assembly Supervision	SLAC	ED&I	3	4 wks	\$0.00	\$0.00	\$13,440.00	\$13,440.00	\$2,688.00	\$5,644.80	\$21,772
		SLAC AD: Mech/Vacuum Engineer		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$13,440.00	\$0.00	\$0.00	\$0
778	1.2.2.4.7	Bunch Length Mon			0	21 wks	\$0.00	\$30,000.00	\$46,590.72	\$76,590.72	\$11,118.14	\$21,927.22	\$109,636
779	1.2.2.4.7.1	BL Materials	SLAC	M&S	2	0 wks	\$0.00	\$30,000.00	\$0.00	\$30,000.00	\$1,800.00	\$7,950.00	\$39,750
		SLAC M&S Total		M&S	0	30,000	\$0.00	\$0.00	\$0.00	\$30,000.00	\$0.00	\$0.00	\$0.

101	0	CD4	TEC
LUL	٠.	CUI	TEC

ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
780	1.2.2.4.7.2	BL Part Marching	SLAC	B&H	2	3 wks	\$0.00	\$0.00	\$9,600.00	\$9,600.00	\$1,920.00	\$2,880.00	\$14,400.
		SLAC Mech. Fab: Machine Shop		B&H	0	3 wks	\$0.00	\$0.00	\$0.00	\$9,600.00	\$0.00	\$0.00	\$0.
781	1.2.2.4.7.3	BL Parts QA	SLAC	B&H	2	2 wks	\$0.00	\$0.00	\$4,560.00	\$4,560.00	\$912.00	\$1,368.00	\$6,840.
		SLAC Metrology:Eng.& Surveyors		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,560.00	\$0.00	\$0.00	\$0.
782	1.2.2.4.7.4	BL Assembly	SLAC	B&H	2	12 wks	\$0.00	\$0.00	\$23,985.60	\$23,985.60	\$4,797.12	\$7,195.68	\$35,978.
		SLAC Mech. Fab: Assembly Tech		B&H	0	12 wks	\$0.00	\$0.00	\$0.00	\$23,985.60	\$0.00	\$0.00	\$0.
783	1.2.2.4.7.5	BL Fiducialize	SLAC	B&H	2	1.6 wks	\$0.00	\$0.00	\$3,648.00	\$3,648.00	\$729.60	\$1,094.40	\$5,472.
		SLAC Metrology:Eng.& Surveyors		B&H	0	1.6 wks	\$0.00	\$0.00	\$0.00	\$3,648.00	\$0.00	\$0.00	\$0.
784	1.2.2.4.7.6	BL Vac Process	SLAC	B&H	2	2.4 wks	\$0.00	\$0.00	\$4,797.12	\$4,797.12	\$959.42	\$1,439.14	\$7,195
		SLAC Mech. Fab: Assembly Tech		B&H	0	2.4 wks	\$0.00	\$0.00	\$0.00	\$4,797.12	\$0.00	\$0.00	\$0.
785	1.2.2.5	Power Conversion			0	462.6 wks	\$0.00	\$1,361,100.00	\$1,068,056.00	\$2,429,156.00	\$295,277.20	\$369,522.20	\$3,093,955.
786	1.2.2.5.1	New Power Supplies			0	199 wks	\$0.00	\$729,000.00	\$416,424.00	\$1,145,424.00	\$127,024.80	\$318,112.20	\$1,590,561.
787	1.2.2.5.1.1	B11-14 (30 KW)	SLAC	M&S	2	0 wks	\$0.00	\$13,000.00	\$0.00	\$13,000.00	\$780.00	\$3,445.00	\$17,225.
		SLAC M&S Total		M&S	0	13,000	\$0.00	\$0.00	\$0.00	\$13,000.00	\$0.00	\$0.00	\$0.
788	1.2.2.5.1.2	QM14 (1 KW)	SLAC	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$530.00	\$2,650
700	1.2.2.3.1.2		SLAC										
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.
789	1.2.2.5.1.3	QM15 (1 KW)	SLAC	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$530.00	\$2,650
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.
1790	1.2.2.5.1.4	Sec-23 (2KW)	SLAC	M&S	2	0 wks	\$0.00	\$5,000.00	\$0.00	\$5,000.00	\$300.00	\$1,325.00	\$6,625
		SLAC M&S Total		M&S	0	5,000	\$0.00	\$0.00	\$0.00	\$5,000.00	\$0.00	\$0.00	\$0.
791	1.2.2.5.1.5	Sec-24 (2 KW)	SLAC	M&S	2	0 wks	\$0.00	\$5,000.00	\$0.00	\$5,000.00	\$300.00	\$1,325.00	\$6,625
		SLAC M&S Total		M&S	0	5,000	\$0.00	\$0.00	\$0.00	\$5,000.00	\$0.00	\$0.00	\$0.
1792	1.2.2.5.1.6	Q24701 (10KW)	SLAC	M&S	2	0 wks	\$0.00	\$33,000.00	\$0.00	\$33,000.00	\$1,980.00	\$8,745.00	\$43,725
		SLAC M&S Total		M&S	0	33,000	\$0.00	\$0.00	\$0.00	\$33,000.00	\$0.00	\$0.00	\$0.
1793	1.2.2.5.1.7	Wiggler (50KW)	SLAC	M&S	2	0 wks	\$0.00	\$25,000.00	\$0.00	\$25,000.00	\$1,500.00	\$6,625.00	\$33,125
		SLAC M&S Total		M&S	0	25,000	\$0.00	\$0.00	\$0.00	\$25,000.00	\$0.00	\$0.00	\$0.
794	1.2.2.5.1.8	QM21 (10 KW)	SLAC	M&S	2	0 wks	\$0.00	\$7,000.00	\$0.00	\$7,000.00	\$420.00	\$1,855.00	\$9,275.
		SLAC M&S Total		M&S	0	7,000	\$0.00	\$0.00	\$0.00	\$7,000.00	\$0.00	\$0.00	\$0.
795	1.2.2.5.1.9	B21-26 (90 KW)	SLAC	M&S	2	0 wks	\$0.00	\$45,000.00	\$0.00	\$45,000.00	\$2,700.00	\$11,925.00	\$59,625.
		SLAC M&S Total		M&S	0	45,000	\$0.00	\$0.00	\$0.00	\$45,000.00	\$0.00	\$0.00	\$0.
796	1.2.2.5.1.10	QM22 (10 KW)	SLAC	M&S		0 wks	\$0.00	\$7,000.00	\$0.00	\$7,000.00	\$420.00	\$1,855.00	\$9,275
, 30	1.2.2.3.1.10	SLAC M&S Total	SLAC	M&S	2		\$0.00	\$7,000.00	\$0.00		\$0.00	\$1,855.00	
					0	7,000				\$7,000.00			\$0.
797	1.2.2.5.1.11	Q24901 (10 KW)	SLAC	M&S	2	0 wks	\$0.00	\$7,000.00	\$0.00	\$7,000.00	\$420.00	\$1,855.00	\$9,275
		SLAC M&S Total		M&S	0	7,000	\$0.00	\$0.00	\$0.00	\$7,000.00	\$0.00	\$0.00	\$0.
798	1.2.2.5.1.12	Sec-25 (2 KW)	SLAC	M&S	2	0 wks	\$0.00	\$5,000.00	\$0.00	\$5,000.00	\$300.00	\$1,325.00	\$6,625

101	0	CD4	TEC
LUL		CUI	TEC

ID	CWBS	Task Name SLAC M&S Total	OBS	PHASE M&S	Risk	Units 5,000	PED (Direct) \$0.00	M&S (Direct) \$0.00	Labor (Direct)	Direct Cost \$5,000.00	Overhead Cost \$0.00	Contingency Cost \$0.00	Total Cost
1799	1.2.2.5.1.13		SLAC	M&S	2	0 wks	\$0.00	\$5,000.00	\$0.00	\$5,000.00	\$300.00	\$1,325.00	\$6,625.0
		SLAC M&S Total		M&S	0	5,000	\$0.00	\$0.00	\$0.00	\$5,000.00	\$0.00	\$0.00	\$0.0
800	1.2.2.5.1.14	Sec-27 (2 KW)	SLAC	M&S	2	0 wks	\$0.00	\$5,000.00	\$0.00	\$5,000.00	\$300.00	\$1,325.00	\$6,625.0
		SLAC M&S Total		M&S	0	5,000	\$0.00	\$0.00	\$0.00	\$5,000.00	\$0.00	\$0.00	\$0.0
801	1.2.2.5.1.15	Sec-28 (2 KW)	SLAC	M&S	2	0 wks	\$0.00	\$5,000.00	\$0.00	\$5,000.00	\$300.00	\$1,325.00	\$6,625.0
		SLAC M&S Total		M&S	0	5,000	\$0.00	\$0.00	\$0.00	\$5,000.00	\$0.00	\$0.00	\$0.0
802	1.2.2.5.1.16	Sec-29 (2 KW)	SLAC	M&S	2	0 wks	\$0.00	\$5,000.00	\$0.00	\$5,000.00	\$300.00	\$1,325.00	\$6,625.0
		SLAC M&S Total		M&S	0	5,000	\$0.00	\$0.00	\$0.00	\$5,000.00	\$0.00	\$0.00	\$0.0
803	1.2.2.5.1.17	B31-34 (78 KW)	SLAC	M&S	2	0 wks	\$0.00	\$60,000.00	\$0.00	\$60,000.00	\$3,600.00	\$15,900.00	\$79,500.0
		SLAC M&S Total		M&S	0	60,000	\$0.00	\$0.00	\$0.00	\$60,000.00	\$0.00	\$0.00	\$0.0
804	1.2.2.5.1.18	QL31,3,7,9 (90 KW)	SLAC	M&S	2	0 wks	\$0.00	\$75,000.00	\$0.00	\$75,000.00	\$4,500.00	\$19,875.00	\$99,375.0
		SLAC M&S Total		M&S	0	75,000	\$0.00	\$0.00	\$0.00	\$75,000.00	\$0.00	\$0.00	\$0.0
805	1.2.2.5.1.19	QL32,8 (45 KW)	SLAC	M&S	2	0 wks	\$0.00	\$22,000.00	\$0.00	\$22,000.00	\$1,320.00	\$5,830.00	\$29,150.0
		SLAC M&S Total		M&S	0	22,000	\$0.00	\$0.00	\$0.00	\$22,000.00	\$0.00	\$0.00	\$0.0
806	1.2.2.5.1.20	QL34,6 (45 KW)	SLAC	M&S	2	0 wks	\$0.00	\$22,000.00	\$0.00	\$22,000.00	\$1,320.00	\$5,830.00	\$29,150.
		SLAC M&S Total		M&S	0	22,000	\$0.00	\$0.00	\$0.00	\$22,000.00	\$0.00	\$0.00	\$0.0
807	1.2.2.5.1.21	QL35 (10 KW)	SLAC	M&S	2	0 wks	\$0.00	\$7,000.00	\$0.00	\$7,000.00	\$420.00	\$1,855.00	\$9,275.0
		SLAC M&S Total		M&S	0	7,000	\$0.00	\$0.00	\$0.00	\$7,000.00	\$0.00	\$0.00	\$0.0
808	1.2.2.5.1.22	QM31 (10 KW)	SLAC	M&S	2	0 wks	\$0.00	\$7,000.00	\$0.00	\$7,000.00	\$420.00	\$1,855.00	\$9,275.0
		SLAC M&S Total		M&S	0	7,000	\$0.00	\$0.00	\$0.00	\$7,000.00	\$0.00	\$0.00	\$0.0
1809	1.2.2.5.1.23	QM32 (10 KW)	SLAC	M&S	2	0 wks	\$0.00	\$7,000.00	\$0.00	\$7,000.00	\$420.00	\$1,855.00	\$9,275.0
		SLAC M&S Total		M&S	0	7,000	\$0.00	\$0.00	\$0.00	\$7,000.00	\$0.00	\$0.00	\$0.0
1810	1.2.2.5.1.24	VB1/2 (90 KW)	SLAC	M&S	2	0 wks	\$0.00	\$75,000.00	\$0.00	\$75,000.00	\$4,500.00	\$19,875.00	\$99,375.0
		SLAC M&S Total		M&S	0	75,000	\$0.00	\$0.00	\$0.00	\$75,000.00	\$0.00	\$0.00	\$0.0
811	1.2.2.5.1.25	QVB1,2,3,4 (90 KW)	SLAC	M&S	2	0 wks	\$0.00	\$75,000.00	\$0.00	\$75,000.00	\$4,500.00	\$19,875.00	\$99,375.0
		SLAC M&S Total		M&S	0	75,000	\$0.00	\$0.00	\$0.00	\$75,000.00	\$0.00	\$0.00	\$0.0
812	1.2.2.5.1.26	QM33 (10 KW)	SLAC	M&S	2	0 wks	\$0.00	\$7,000.00	\$0.00	\$7,000.00	\$420.00	\$1,855.00	\$9,275.0
		SLAC M&S Total		M&S	0	7,000	\$0.00	\$0.00	\$0.00	\$7,000.00	\$0.00	\$0.00	\$0.0
813	1.2.2.5.1.27	QM34 (10 KW)	SLAC	M&S	2	0 wks	\$0.00	\$7,000.00	\$0.00	\$7,000.00	\$420.00	\$1,855.00	\$9,275.0
		SLAC M&S Total		M&S	0	7,000	\$0.00	\$0.00	\$0.00	\$7,000.00	\$0.00	\$0.00	\$0.0
814	1.2.2.5.1.28	QE31-6 (15 KW)	SLAC	M&S	2	0 wks	\$0.00	\$7,000.00	\$0.00	\$7,000.00	\$420.00	\$1,855.00	\$9,275.0
		SLAC M&S Total		M&S	0	7,000	\$0.00	\$0.00	\$0.00	\$7,000.00	\$0.00	\$0.00	\$0.0
815	1.2.2.5.1.29		SLAC	M&S	2	0 wks	\$0.00	\$7,000.00	\$0.00	\$7,000.00	\$420.00	\$1,855.00	\$9,275.0
1010	1.2.2.3.1.29	, ,	SLAC										
		SLAC M&S Total		M&S	0	7,000	\$0.00	\$0.00	\$0.00	\$7,000.00	\$0.00	\$0.00	\$0.0

101	0	CD4	TEC
LUL		CUI	TEC

ID		Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
816	1.2.2.5.1.30	QM36 (10 KW)	SLAC	M&S	2	0 wks	\$0.00	\$7,000.00	\$0.00	\$7,000.00	\$420.00	\$1,855.00	\$9,275.
		SLAC M&S Total		M&S	0	7,000	\$0.00	\$0.00	\$0.00	\$7,000.00	\$0.00	\$0.00	\$0.0
317	1.2.2.5.1.31	QM37 (10 KW)	SLAC	M&S	2	0 wks	\$0.00	\$7,000.00	\$0.00	\$7,000.00	\$420.00	\$1,855.00	\$9,275.
		SLAC M&S Total		M&S	0	7,000	\$0.00	\$0.00	\$0.00	\$7,000.00	\$0.00	\$0.00	\$0.
818	1.2.2.5.1.32	QM38 (10 KW)	SLAC	M&S	2	0 wks	\$0.00	\$7,000.00	\$0.00	\$7,000.00	\$420.00	\$1,855.00	\$9,275
\dashv		SLAC M&S Total		M&S	0	7,000	\$0.00	\$0.00	\$0.00	\$7,000.00	\$0.00	\$0.00	\$0
319	1.2.2.5.1.33	QA11	SLAC	M&S	2	0 wks	\$0.00	\$18,000.00	\$0.00	\$18,000.00	\$1,080.00	\$4,770.00	\$23,850
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0
320	1.2.2.5.1.34	HA11	SLAC	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$530.00	\$2,650
,20	1.2.2.0.1.04		OE/(O										
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0
321	1.2.2.5.1.35		SLAC	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$530.00	\$2,650
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0
22	1.2.2.5.1.36	QA12	SLAC	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$530.00	\$2,650
\dashv		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$
23	1.2.2.5.1.37	HA12	SLAC	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$530.00	\$2,65
\dashv		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$
24	1.2.2.5.1.38	VA12	SLAC	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$530.00	\$2,65
_		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0
25	1.2.2.5.1.39		SLAC	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$530.00	\$2,65
,20	1.2.2.0.1.00		OE/(O				***					,,,,,,	
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$
326	1.2.2.5.1.40		SLAC	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$530.00	\$2,65
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0
327	1.2.2.5.1.41	HM11	SLAC	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$530.00	\$2,65
\dashv		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$
328	1.2.2.5.1.42	CQ11	SLAC	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$530.00	\$2,65
\dashv		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0
29	1.2.2.5.1.43	HS11	SLAC	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$530.00	\$2,65
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$
20	1.2.2.5.1.44		SLAC	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$530.00	\$2,65
30	1.2.2.5.1.44		SLAC										
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$
31	1.2.2.5.1.45	CQ12	SLAC	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$530.00	\$2,65
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$
332	1.2.2.5.1.46	QM12	SLAC	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$530.00	\$2,65
-		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$6
333	1.2.2.5.1.47	VM12	SLAC	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$530.00	\$2,650

C	CD1	TEC

ID	CWBS	Task Name SLAC M&S Total	OBS	PHASE M&S	Risk	Units 2,000	PED (Direct)	M&S (Direct) \$0.00	Labor (Direct) \$0.00	Direct Cost \$2,000.00	Overhead Cost \$0.00	Contingency Cost \$0.00	Total Cost \$0.00
					0								
1834	1.2.2.5.1.48	QM13	SLAC	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$530.00	\$2,650.00
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.00
1835	1.2.2.5.1.49	HM13	SLAC	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$530.00	\$2,650.00
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.00
1836	1.2.2.5.1.50	HM14	SLAC	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$530.00	\$2,650.00
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.00
1837	1.2.2.5.1.51	VM15	SLAC	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$530.00	\$2,650.00
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.00
1838	1.2.2.5.1.52	CQ21	SLAC	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$530.00	\$2,650.00
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.00
1839	1.2.2.5.1.53	HS21	SLAC	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$530.00	\$2,650.00
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.00
1840	1.2.2.5.1.54	VS11	SLAC	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$530.00	\$2,650.00
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.00
1841	1.2.2.5.1.55	CQ22	SLAC	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$530.00	\$2,650.00
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.00
1842	1.2.2.5.1.56	V5	SLAC	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$530.00	\$2,650.00
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.00
1843	1.2.2.5.1.57	H5	SLAC	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$530.00	\$2,650.00
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.00
1844	1.2.2.5.1.58	H0	SLAC	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$530.00	\$2,650.00
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.00
1845	1.2.2.5.1.59	VDL2	SLAC	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$530.00	\$2,650.00
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.00
1846	1.2.2.5.1.60	HDL2	SLAC	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$530.00	\$2,650.00
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.00
1847	1.2.2.5.1.61	VL31	SLAC	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$530.00	\$2,650.00
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.00
1848	1.2.2.5.1.62	HL32	SLAC	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$530.00	\$2,650.00
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.00
1849	1.2.2.5.1.63	VL33	SLAC	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$530.00	\$2,650.00
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.00
1850	1.2.2.5.1.64	HL34	SLAC	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$530.00	\$2,650.00
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.00

C	CD1	TEC

ID		Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost		Contingency Cost	Total Cost
851	1.2.2.5.1.65	VL35	SLAC	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$530.00	\$2,650.0
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.0
852	1.2.2.5.1.66	HL36	SLAC	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$530.00	\$2,650.0
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.0
853	1.2.2.5.1.67	VL37	SLAC	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$530.00	\$2,650.0
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.0
854	1.2.2.5.1.68	HL38	SLAC	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$530.00	\$2,650.0
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.0
0EE	1.2.2.5.1.69	VL39	SLAC	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$530.00	\$2,650.0
655	1.2.2.5.1.09		SLAC										
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.0
856	1.2.2.5.1.70	HM31	SLAC	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$530.00	\$2,650.0
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.0
857	1.2.2.5.1.71	VM32	SLAC	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$530.00	\$2,650.0
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.0
858	1.2.2.5.1.72	HVB1	SLAC	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$530.00	\$2,650.0
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.
359	1.2.2.5.1.73	VVB	SLAC	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000,00	\$120.00	\$530.00	\$2,650.
	1.2.2.0.10	SLAC M&S Total	027.0	M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.0
860	1.2.2.5.1.74	HVB2	SLAC	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$530.00	\$2,650.
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.0
861	1.2.2.5.1.75	VM33	SLAC	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$530.00	\$2,650.
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.0
862	1.2.2.5.1.76	HM34	SLAC	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$530.00	\$2,650.
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.
863	1.2.2.5.1.77	VE31	SLAC	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$530.00	\$2,650.
		SLAC M&S Total	027.0	M&S		2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.0
					0								
864	1.2.2.5.1.78	HE32	SLAC	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$530.00	\$2,650.
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.
865	1.2.2.5.1.79	VE33	SLAC	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$530.00	\$2,650.
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.
866	1.2.2.5.1.80	HE34	SLAC	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$530.00	\$2,650.
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.
867	1.2.2.5.1.81		SLAC	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$530.00	\$2,650.
	2.2.0.1.01		OL/10										
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.0
868	1.2.2.5.1.82	HE36	SLAC	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$530.00	\$2,650.0

C	CD1	TEC

						LCLS_CD1_TEC							
ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.00
1869	1.2.2.5.1.83	HM35	SLAC	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$530.00	\$2,650.00
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.00
1870	1.2.2.5.1.84	VM36	SLAC	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$530.00	\$2,650.00
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.00
1871	1.2.2.5.1.85	HM37	SLAC	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$530.00	\$2,650.00
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.00
1872	1.2.2.5.1.86	HM38	SLAC	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$530.00	\$2,650.00
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.00
1873	1.2.2.5.1.87	VM38	SLAC	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$530.00	\$2,650.00
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.00
1874	1.2.2.5.1.88	MCOR Bukk	SLAC	M&S	2	0 wks	\$0.00	\$28,000.00	\$0.00	\$28,000.00	\$1,680.00	\$7,420.00	\$37,100.00
		SLAC M&S Total		M&S	0	28,000	\$0.00	\$0.00	\$0.00	\$28,000.00	\$0.00	\$0.00	\$0.00
1875	1.2.2.5.1.89	New Power Supplies			0	199 wks	\$0.00	\$0.00	\$416,424.00	\$416,424.00	\$83,284.80	\$124,927.20	\$624,636.00
1876	1.2.2.5.1.89	New Power Supplies	SLAC	ED&I	2	35 wks	\$0.00	\$0.00	\$105,000.00	\$105,000.00	\$21,000.00	\$31,500.00	\$157,500.00
		SLAC PCD:Engineer		ED&I	0	35 wks	\$0.00	\$0.00	\$0.00	\$105,000.00	\$0.00	\$0.00	\$0.00
1877	1.2.2.5.1.89	New Power Supplies	SLAC	B&H	2	40 wks	\$0.00	\$0.00	\$70,144.00	\$70,144.00	\$14,028.80	\$21,043.20	\$105,216.00
		SLAC PCD:Technician		B&H	0	40 wks	\$0.00	\$0.00	\$0.00	\$70,144.00	\$0.00	\$0.00	\$0.00
1878	1.2.2.5.1.89	New Power Supplies	SLAC	B&H	2	40 wks	\$0.00	\$0.00	\$80,000.00	\$80,000.00	\$16,000.00	\$24,000.00	\$120,000.00
		SLACL PCD:Inst-Cabling-Elec Fab		B&H	0	40 wks	\$0.00	\$0.00	\$0.00	\$80,000.00	\$0.00	\$0.00	\$0.00
1879	1.2.2.5.1.89	System Dwgs (EI, WD, Profile,	SLAC	ED&I	2	84 wks	\$0.00	\$0.00	\$161,280.00	\$161,280.00	\$32,256.00	\$48,384.00	\$241,920.00
		SLAC PCD:Coordinator Associate		ED&I	0	84 wks	\$0.00	\$0.00	\$0.00	\$161,280.00	\$0.00	\$0.00	\$0.00
1880	1.2.2.5.2	Cntrls/Transductors/Switches			0	0 wks	\$0.00	\$194,000.00	\$0.00	\$194,000.00	\$11,640.00	\$51,410.00	\$257,050.00
1881	1.2.2.5.2.1	MCOR Chassis	SLAC	M&S	2	0 wks	\$0.00	\$28,000.00	\$0.00	\$28,000.00	\$1,680.00	\$7,420.00	\$37,100.00
		SLAC M&S Total		M&S	0	28,000	\$0.00	\$0.00	\$0.00	\$28,000.00	\$0.00	\$0.00	\$0.00
1882	1.2.2.5.2.2	Large PS Controller	SLAC	M&S	2	0 wks	\$0.00	\$56,000.00	\$0.00	\$56,000.00	\$3,360.00	\$14,840.00	\$74,200.00
		SLAC M&S Total		M&S	0	56,000	\$0.00	\$0.00	\$0.00	\$56,000.00	\$0.00	\$0.00	\$0.00
1883	1.2.2.5.2.3		SLAC	M&S	2	0 wks	\$0.00	\$47,000.00	\$0.00	\$47,000.00	\$2,820.00	\$12,455.00	\$62,275.00
	11212101210	SLAC M&S Total	02.10	M&S	0	47,000	\$0.00	\$0.00	\$0.00	\$47,000.00	\$0.00	\$0.00	\$0.00
1884	1.2.2.5.2.4		SLAC	M&S	2	0 wks	\$0.00	\$35,000.00	\$0.00	\$35,000.00	\$2,100.00	\$9,275.00	\$46,375.00
1004	1.2.2.5.2.4		SLAC										
1885	1.2.2.5.2.5	SLAC M&S Total	SLAC	M&S M&S	0	35,000 0 wks	\$0.00	\$0.00	\$0.00 \$0.00	\$35,000.00 \$4,000.00	\$0.00 \$240.00	\$0.00	\$0.00 \$5,300.00
1085	1.2.2.5.2.5		SLAC		2							\$1,060.00	
		SLAC M&S Total		M&S	0	4,000	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$0.00
1886	1.2.2.5.2.6		SLAC	M&S	2	0 wks	\$0.00	\$24,000.00	\$0.00	\$24,000.00	\$1,440.00	\$6,360.00	\$31,800.00
		SLAC M&S Total		M&S	0	24,000	\$0.00	\$0.00	\$0.00	\$24,000.00	\$0.00	\$0.00	\$0.00

		Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
1887	1.2.2.5.3	Racks, cables, trays			0	263.6 wks	\$0.00	\$438,100.00	\$651,632.00	\$1,089,732.00	\$156,612.40	\$0.00	\$1,246,344.4
1888	1.2.2.5.3.1	Rack, Single Bay (DC and I&C)	SLAC	M&S	0	0 wks	\$0.00	\$42,000.00	\$0.00	\$42,000.00	\$2,520.00	\$0.00	\$44,520.0
		SLAC M&S Total		M&S	0	42,000	\$0.00	\$0.00	\$0.00	\$42,000.00	\$0.00	\$0.00	\$0.0
889	1.2.2.5.3.2	Rack, Double bay	SLAC	M&S	0	0 wks	\$0.00	\$45,000.00	\$0.00	\$45,000.00	\$2,700.00	\$0.00	\$47,700.0
		SLAC M&S Total		M&S	0	45,000	\$0.00	\$0.00	\$0.00	\$45,000.00	\$0.00	\$0.00	\$0.0
890	1.2.2.5.3.3	AC Pwr to rack, AC Distr PnI, Safety Cover, CBs (DC and I&C)	SLAC	M&S	0	0 wks	\$0.00	\$55,000.00	\$0.00	\$55,000.00	\$3,300.00	\$0.00	\$58,300.0
		SLAC M&S Total		M&S	0	55,000	\$0.00	\$0.00	\$0.00	\$55,000.00	\$0.00	\$0.00	\$0.0
891	1.2.2.5.3.4	Earthquake racks (DC and I&C)	SLAC	M&S	0	0 wks	\$0.00	\$2,200.00	\$0.00	\$2,200.00	\$132.00	\$0.00	\$2,332.0
		SLAC M&S Total		M&S	0	2,200	\$0.00	\$0.00	\$0.00	\$2,200.00	\$0.00	\$0.00	\$0.0
892	1.2.2.5.3.5	20A 2P Latching NR Contactor (DC and I&C)	SLAC	M&S	0	0 wks	\$0.00	\$6,000.00	\$0.00	\$6,000.00	\$360.00	\$0.00	\$6,360.0
		SLAC M&S Total		M&S	0	6,000	\$0.00	\$0.00	\$0.00	\$6,000.00	\$0.00	\$0.00	\$0.0
893	1.2.2.5.3.6	200A 2P Latching NR Contactor (DC and I&C)	SLAC	M&S	0	0 wks	\$0.00	\$42,000.00	\$0.00	\$42,000.00	\$2,520.00	\$0.00	\$44,520.
		SLAC M&S Total		M&S	0	42,000	\$0.00	\$0.00	\$0.00	\$42,000.00	\$0.00	\$0.00	\$0.0
894	1.2.2.5.3.7	20 - 200A Contactor Control (DC and I&C)	SLAC	M&S	0	0 wks	\$0.00	\$18,000.00	\$0.00	\$18,000.00	\$1,080.00	\$0.00	\$19,080.
\dashv		SLAC M&S Total		M&S	0	18,000	\$0.00	\$0.00	\$0.00	\$18,000.00	\$0.00	\$0.00	\$0.
895	1.2.2.5.3.7	Corr, Low power Trims, Bipolar	SLAC	M&S	0	0 wks	\$0.00	\$4,500.00	\$0.00	\$4,500.00	\$270.00	\$0.00	\$4,770
		SLAC M&S Total		M&S	0	4,500	\$0.00	\$0.00	\$0.00	\$4,500.00	\$0.00	\$0.00	\$0.
896	1.2.2.5.3.8	2/C#18AWG Interlock	SLAC	M&S	0	0 wks	\$0.00	\$1,800.00	\$0.00	\$1,800.00	\$108.00	\$0.00	\$1,908.
		SLAC M&S Total		M&S	0	1,800	\$0.00	\$0.00	\$0.00	\$1,800.00	\$0.00	\$0.00	\$0.
897	1.2.2.5.3.9	2/C#10AWG	SLAC	M&S	0	0 wks	\$0.00	\$600.00	\$0.00	\$600.00	\$36.00	\$0.00	\$636.
		SLAC M&S Total		M&S	0	600	\$0.00	\$0.00	\$0.00	\$600.00	\$0.00	\$0.00	\$0.
898	1.2.2.5.3.10	1-2/C#8 AWG	SLAC	M&S	0	0 wks	\$0.00	\$10,400.00	\$0.00	\$10,400.00	\$624.00	\$0.00	\$11,024.
		SLAC M&S Total		M&S	0	10,400	\$0.00	\$0.00	\$0.00	\$10,400.00	\$0.00	\$0.00	\$0.
899	1.2.2.5.3.11	1/C#2/0 AWG	SLAC	M&S	0	0 wks	\$0.00	\$3,900.00	\$0.00	\$3,900.00	\$234.00	\$0.00	\$4,134.
\dashv		SLAC M&S Total		M&S	0	3,900	\$0.00	\$0.00	\$0.00	\$3,900.00	\$0.00	\$0.00	\$0.0
900	1.2.2.5.3.12	1/C#4/0AWG	SLAC	M&S	0	0 wks	\$0.00	\$11,900.00	\$0.00	\$11,900.00	\$714.00	\$0.00	\$12,614.
		SLAC M&S Total		M&S	0	11,900	\$0.00	\$0.00	\$0.00	\$11,900.00	\$0.00	\$0.00	\$0.0
901	1.2.2.5.3.13	1/C#300kcmil	SLAC	M&S	0	0 wks	\$0.00	\$21,000.00	\$0.00	\$21,000.00	\$1,260.00	\$0.00	\$22,260.
\dashv		SLAC M&S Total		M&S	0	21,000	\$0.00	\$0.00	\$0.00	\$21,000.00	\$0.00	\$0.00	\$0.0
902	1.2.2.5.3.14	1/C#500kcmil	SLAC	M&S	0	0 wks	\$0.00	\$2,700.00	\$0.00	\$2,700.00	\$162.00	\$0.00	\$2,862.
		SLAC M&S Total		M&S	0	2,700	\$0.00	\$0.00	\$0.00	\$2,700.00	\$0.00	\$0.00	\$0.
903	1.2.2.5.3.15	1/C#600kcmil	SLAC	M&S	0	0 wks	\$0.00	\$21,100.00	\$0.00	\$21,100.00	\$1,266.00	\$0.00	\$22,366.
		SLAC M&S Total		M&S	0	21,100	\$0.00	\$0.00	\$0.00	\$21,100.00	\$0.00	\$0.00	\$0.
904	1.2.2.5.3.16	Cable lugs, Splices, Etc	SLAC	M&S	0	0 wks	\$0.00	\$4,000.00	\$0.00	\$4,000.00	\$240.00	\$0.00	\$4,240.
	2.20	SLAC M&S Total		M&S	0	4,000	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$0.

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ID 1905		Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
905	1.2.2.5.3.17	18"W 4"D G Stl Cable Tray (DC and I&C)	SLAC	M&S	0	0 wks	\$0.00	\$45,600.00	\$0.00	\$45,600.00	\$2,736.00	\$0.00	\$48,336.0
		SLAC M&S Total		M&S	0	45,600	\$0.00	\$0.00	\$0.00	\$45,600.00	\$0.00	\$0.00	\$0.0
906	1.2.2.5.3.18	Cable Tray Fittings (DC and I&C)	SLAC	M&S	0	0 wks	\$0.00	\$48,000.00	\$0.00	\$48,000.00	\$2,880.00	\$0.00	\$50,880.
		SLAC M&S Total		M&S	0	48,000	\$0.00	\$0.00	\$0.00	\$48,000.00	\$0.00	\$0.00	\$0.0
907	1.2.2.5.3.19	Trapeze Cable Tray Supports (DC and I&C)	SLAC	M&S	0	0 wks	\$0.00	\$35,000.00	\$0.00	\$35,000.00	\$2,100.00	\$0.00	\$37,100.
		SLAC M&S Total		M&S	0	35,000	\$0.00	\$0.00	\$0.00	\$35,000.00	\$0.00	\$0.00	\$0.
908	1.2.2.5.3.20	Cable Tray Grounding (DC and I&C,\$1.8/ft)	SLAC	M&S	0	0 wks	\$0.00	\$8,600.00	\$0.00	\$8,600.00	\$516.00	\$0.00	\$9,116
		SLAC M&S Total		M&S	0	8,600	\$0.00	\$0.00	\$0.00	\$8,600.00	\$0.00	\$0.00	\$0.
909	1.2.2.5.3.21	Gnd Jumpers (DC and I&C)	SLAC	M&S	0	0 wks	\$0.00	\$6,000.00	\$0.00	\$6,000.00	\$360.00	\$0.00	\$6,360
		SLAC M&S Total		M&S	0	6,000	\$0.00	\$0.00	\$0.00	\$6,000.00	\$0.00	\$0.00	\$0.
910	1.2.2.5.3.22	Conduits for Linac penetrations, 4"ID	SLAC	M&S	0	0 wks	\$0.00	\$2,800.00	\$0.00	\$2,800.00	\$168.00	\$0.00	\$2,968
		SLAC M&S Total		M&S	0	2,800	\$0.00	\$0.00	\$0.00	\$2,800.00	\$0.00	\$0.00	\$0.
911	1.2.2.5.3.1	Rack, Single Bay (DC and I&C)	SLAC	B&H	0	2.5 wks	\$0.00	\$0.00	\$6,800.00	\$6,800.00	\$1,360.00	\$0.00	\$8,160
		SLAC T&M Crafts - Union Electrician		B&H	0	2.5 wks	\$0.00	\$0.00	\$0.00	\$6,800.00	\$0.00	\$0.00	\$0
12	1.2.2.5.3.2	Rack, Double bay	SLAC	B&H	0	4.3 wks	\$0.00	\$0.00	\$11,696.00	\$11,696.00	\$2,339.20	\$0.00	\$14,035
		SLAC T&M Crafts - Union Electrician		B&H	0	4.3 wks	\$0.00	\$0.00	\$0.00	\$11,696.00	\$0.00	\$0.00	\$0
13	1.2.2.5.3.3		SLAC	B&H	0	6.9 wks	\$0.00	\$0.00	\$18,768.00	\$18,768.00	\$3,753.60	\$0.00	\$22,521
,13	1.2.2.5.3.3	I&C)	SLAC										
		SLAC T&M Crafts - Union Electrician		B&H	0	6.9 wks	\$0.00	\$0.00	\$0.00	\$18,768.00	\$0.00	\$0.00	\$0
914	1.2.2.5.3.4		SLAC	B&H	0	1.5 wks	\$0.00	\$0.00	\$4,080.00	\$4,080.00	\$816.00	\$0.00	\$4,896
		SLAC T&M Crafts - Union Electrician		B&H	0	1.5 wks	\$0.00	\$0.00	\$0.00	\$4,080.00	\$0.00	\$0.00	\$0
915	1.2.2.5.3.5	20A 2P Latching NR Contactor (DC and I&C)	SLAC	B&H	0	1 wk	\$0.00	\$0.00	\$2,720.00	\$2,720.00	\$544.00	\$0.00	\$3,264
		SLAC T&M Crafts - Union Electrician		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,720.00	\$0.00	\$0.00	\$0
916	1.2.2.5.3.6	200A 2P Latching NR Contactor (DC and I&C)	SLAC	B&H	0	2.3 wks	\$0.00	\$0.00	\$6,256.00	\$6,256.00	\$1,251.20	\$0.00	\$7,507
		SLAC T&M Crafts - Union Electrician		B&H	0	2.3 wks	\$0.00	\$0.00	\$0.00	\$6,256.00	\$0.00	\$0.00	\$0
917	1.2.2.5.3.7	20 - 200A Contactor Control (DC and I&C)	SLAC	B&H	0	1.5 wks	\$0.00	\$0.00	\$4,080.00	\$4,080.00	\$816.00	\$0.00	\$4,896
		SLAC T&M Crafts - Union Electrician		B&H	0	1.5 wks	\$0.00	\$0.00	\$0.00	\$4,080.00	\$0.00	\$0.00	\$0
918	1.2.2.5.3.7	Corr, Low power Trims, Bipolar	SLAC	B&H	0	1.5 wks	\$0.00	\$0.00	\$4,080.00	\$4,080.00	\$816.00	\$0.00	\$4,896
		SLAC T&M Crafts - Union Electrician		B&H	0	1.5 wks	\$0.00	\$0.00	\$0.00	\$4,080.00	\$0.00	\$0.00	\$0
919	1.2.2.5.3.8	2/C#18AWG Interlock	SLAC	B&H	0	2.5 wks	\$0.00	\$0.00	\$6,800.00	\$6,800.00	\$1,360.00	\$0.00	\$8,160
		SLAC T&M Crafts - Union Electrician		B&H	0	2.5 wks	\$0.00	\$0.00	\$0.00	\$6,800.00	\$0.00	\$0.00	\$0
920	1.2.2.5.3.9	2/C#10AWG	SLAC	B&H	0	2 wks	\$0.00	\$0.00	\$5,440.00	\$5,440.00	\$1,088.00	\$0.00	\$6,528
		SLAC T&M Crafts - Union Electrician		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$5,440.00	\$0.00	\$0.00	\$0
921	1.2.2.5.3.10		SLAC	B&H	0	0.6 wks	\$0.00	\$0.00	\$1.632.00	\$1,632.00	\$326.40	\$0.00	\$1,958
		SLAC T&M Crafts - Union Electrician		B&H	0	0.6 wks	\$0.00	\$0.00	\$0.00	\$1,632.00	\$0.00	\$0.00	\$1,550
									·			.	\$37,862
1922	1.2.2.5.3.11	1/C#2/0 AWG	SLAC	B&H	0	11.6 wks	\$0.00	\$0.00	0	\$31,552.00	\$31,552.00 \$31,552.00	\$31,552.00 \$31,552.00 \$6,310.40	0 \$31,552.00 \$31,552.00 \$6,310.40 \$0.00

ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		SLAC T&M Crafts - Union Electrician		B&H	0	11.6 wks	\$0.00	\$0.00	\$0.00	\$31,552.00	\$0.00	\$0.00	\$0.0
923	1.2.2.5.3.12	1/C#4/0AWG	SLAC	B&H	0	2.8 wks	\$0.00	\$0.00	\$7,616.00	\$7,616.00	\$1,523.20	\$0.00	\$9,139.
		SLAC T&M Crafts - Union Electrician		B&H	0	2.8 wks	\$0.00	\$0.00	\$0.00	\$7,616.00	\$0.00	\$0.00	\$0.
924	1.2.2.5.3.13	1/C#300kcmil	SLAC	B&H	0	5.6 wks	\$0.00	\$0.00	\$15,232.00	\$15,232.00	\$3,046.40	\$0.00	\$18,278
		SLAC T&M Crafts - Union Electrician		B&H	0	5.6 wks	\$0.00	\$0.00	\$0.00	\$15,232.00	\$0.00	\$0.00	\$0.
925	1.2.2.5.3.14	1/C#500kcmil	SLAC	B&H	0	6.7 wks	\$0.00	\$0.00	\$18,224.00	\$18,224.00	\$3,644.80	\$0.00	\$21,868
		SLAC T&M Crafts - Union Electrician		B&H	0	6.7 wks	\$0.00	\$0.00	\$0.00	\$18,224.00	\$0.00	\$0.00	\$0
926	1.2.2.5.3.15	1/C#600kcmil	SLAC	B&H	0	0.9 wks	\$0.00	\$0.00	\$2,448.00	\$2,448.00	\$489.60	\$0.00	\$2,937
		SLAC T&M Crafts - Union Electrician		B&H	0	0.9 wks	\$0.00	\$0.00	\$0.00	\$2,448.00	\$0.00	\$0.00	\$0
927	1.2.2.5.3.16	Cable lugs, Splices, Etc	SLAC	B&H	0	7.3 wks	\$0.00	\$0.00	\$19,856.00	\$19,856.00	\$3,971.20	\$0.00	\$23,827
		SLAC T&M Crafts - Union Electrician		B&H	0	7.3 wks	\$0.00	\$0.00	\$0.00	\$19,856.00	\$0.00	\$0.00	\$0
928	1.2.2.5.3.17	18"W 4"D G Stil Cable Tray (DC and I&C)	SLAC	B&H	0	3.5 wks	\$0.00	\$0.00	\$9,520.00	\$9,520.00	\$1,904.00	\$0.00	\$11,424
		SLAC T&M Crafts - Union Electrician		B&H	0	3.5 wks	\$0.00	\$0.00	\$0.00	\$9,520.00	\$0.00	\$0.00	\$0
929	1.2.2.5.3.18		SLAC	B&H	0	8.9 wks	\$0.00	\$0.00	\$24,208.00	\$24,208.00	\$4,841.60	\$0.00	\$29,049
		SLAC T&M Crafts - Union Electrician		B&H	0	8.9 wks	\$0.00	\$0.00	\$0.00	\$24,208.00	\$0.00	\$0.00	\$0
200	1005040		01.40										
930	1.2.2.5.3.19		SLAC	B&H	0	18.8 wks	\$0.00	\$0.00	\$51,136.00	\$51,136.00	\$10,227.20	\$0.00	\$61,360
		SLAC T&M Crafts - Union Electrician		B&H	0	18.8 wks	\$0.00	\$0.00	\$0.00	\$51,136.00	\$0.00	\$0.00	\$0
931	1.2.2.5.3.20	, , , , , , , , , , , , , , , , , , , ,	SLAC	B&H	0	3.2 wks	\$0.00	\$0.00	\$8,704.00	\$8,704.00	\$1,740.80	\$0.00	\$10,444
		SLAC T&M Crafts - Union Electrician		B&H	0	3.2 wks	\$0.00	\$0.00	\$0.00	\$8,704.00	\$0.00	\$0.00	\$0
932	1.2.2.5.3.21	Gnd Jumpers (DC and I&C)	SLAC	B&H	0	4 wks	\$0.00	\$0.00	\$10,880.00	\$10,880.00	\$2,176.00	\$0.00	\$13,056
		SLAC T&M Crafts - Union Electrician		B&H	0	4 wks	\$0.00	\$0.00	\$0.00	\$10,880.00	\$0.00	\$0.00	\$0
933	1.2.2.5.3.22	Conduits for Linac penetrations, 4"ID	SLAC	B&H	0	3.7 wks	\$0.00	\$0.00	\$10,064.00	\$10,064.00	\$2,012.80	\$0.00	\$12,076
		SLAC T&M Crafts - Union Electrician		B&H	0	3.7 wks	\$0.00	\$0.00	\$0.00	\$10,064.00	\$0.00	\$0.00	\$0
934	1.2.2.5.3.23	Area Layouts/Raceways/Supports (Cable Plant, DC and I&C)	SLAC	ED&I	0	58 wks	\$0.00	\$0.00	\$174,000.00	\$174,000.00	\$34,800.00	\$0.00	\$208,800
		SLAC PCD:Engineer		ED&I	0	58 wks	\$0.00	\$0.00	\$0.00	\$174,000.00	\$0.00	\$0.00	\$0
935	1.2.2.5.3.24	Corordination/UTR&Engr(C. Plant Group, DC and I&C)	SLAC	ED&I	0	82 wks	\$0.00	\$0.00	\$157,440.00	\$157,440.00	\$31,488.00	\$0.00	\$188,928
		SLAC PCD:Coordinator Associate		ED&I	0	82 wks	\$0.00	\$0.00	\$0.00	\$157,440.00	\$0.00	\$0.00	\$0
936	1.2.2.5.3.25	CAPTAR Documentation (DC and I&C)	SLAC	ED&I	0	20 wks	\$0.00	\$0.00	\$38,400.00	\$38,400.00	\$7,680.00	\$0.00	\$46,080
		SLAC PCD:Coordinator Associate		ED&I	0	20 wks	\$0.00	\$0.00	\$0.00	\$38,400.00	\$0.00	\$0.00	\$0
937	1.2.2.6	Magnets			0	208.8 wks	\$0.00	\$960,000.00	\$585,436.80	\$1,545,436.80	\$174,687.36	\$430,031.04	\$2,150,155
938	1.2.2.6.1	Bend Magnet 5D7.1			0	36 wks	\$0.00	\$45,000.00	\$101,460.48	\$146,460.48	\$22,992.10	\$42,363.14	\$211,815
	1.2.2.6.1	-	SLAC	M&S	2	0 wks	\$0.00	\$45,000.00	\$101,460.48	\$45,000.00		\$11,925.00	
939	1.2.2.6.1.1	Magnet Materials	SLAC								\$2,700.00		\$59,625
		SLAC M&S Total		M&S	0	45,000	\$0.00	\$0.00	\$0.00	\$45,000.00	\$0.00	\$0.00	\$0
940	1.2.2.6.1.2	Magnet Machining	SLAC	B&H	2	24 wks	\$0.00	\$0.00	\$76,800.00	\$76,800.00	\$15,360.00	\$23,040.00	\$115,200
		SLAC Mech. Fab: Machine Shop		B&H	0	24 wks	\$0.00	\$0.00	\$0.00	\$76,800.00	\$0.00	\$0.00	\$0.

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ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
1941	1.2.2.6.1.3		SLAC	B&H	2	6 wks	\$0.00	\$0.00	\$11,992.80	\$11,992.80	\$2,398.56	\$3,597.84	\$17,989.2
-		SLAC Mech. Fab: Assembly Tech		B&H	0	6 wks	\$0.00	\$0.00	\$0.00	\$11,992.80	\$0.00	\$0.00	\$0.0
942	1.2.2.6.1.4	Magnet Assembly	SLAC	B&H	2	3.6 wks	\$0.00	\$0.00	\$7,195.68	\$7,195.68	\$1,439.14	\$2,158.70	\$10,793.5
-		SLAC Mech. Fab: Assembly Tech		B&H	0	3.6 wks	\$0.00	\$0.00	\$0.00	\$7,195.68	\$0.00	\$0.00	\$0.0
943	1.2.2.6.1.5	Fiducialization	SLAC	B&H	2	1.2 wks	\$0.00	\$0.00	\$2,736.00	\$2,736.00	\$547.20	\$820.80	\$4,104.0
		SLAC Metrology:Eng.& Surveyors		B&H	0	1.2 wks	\$0.00	\$0.00	\$0.00	\$2,736.00	\$0.00	\$0.00	\$0.0
944	1.2.2.6.1.6	Mag Measure	SLAC	B&H	2	1.2 wks	\$0.00	\$0.00	\$2,736.00	\$2,736.00	\$547.20	\$820.80	\$4,104.0
-		SLAC Metrology:Eng.& Surveyors		B&H	0	1.2 wks	\$0.00	\$0.00	\$0.00	\$2,736.00	\$0.00	\$0.00	\$0.0
945	1.2.2.6.2	Bend Magnet 1D30.5			0	44.7 wks	\$0.00	\$48,000.00	\$126,057.24	\$174,057.24	\$28,091.45	\$50,537.17	\$252,685.8
946	1.2.2.6.2.1	Magnet Materials	SLAC	M&S	2	0 wks	\$0.00	\$48,000.00	\$0.00	\$48,000.00	\$2,880.00	\$12,720.00	\$63,600.0
-		SLAC M&S Total		M&S	0	48,000	\$0.00	\$0.00	\$0.00	\$48,000.00	\$0.00	\$0.00	\$0.0
947	1.2.2.6.2.2	Magnet Machining	SLAC	B&H	2	30 wks	\$0.00	\$0.00	\$96,000.00	\$96,000.00	\$19,200.00	\$28,800.00	\$144,000.0
		SLAC Mech. Fab: Machine Shop		B&H	0	30 wks	\$0.00	\$0.00	\$0.00	\$96,000.00	\$0.00	\$0.00	\$0.0
948	1.2.2.6.2.3	Mag Coil Winding	SLAC	B&H	2	7.5 wks	\$0.00	\$0.00	\$14,991.00	\$14,991.00	\$2,998.20	\$4,497.30	\$22,486.5
\dashv		SLAC Mech. Fab: Assembly Tech		B&H	0	7.5 wks	\$0.00	\$0.00	\$0.00	\$14,991.00	\$0.00	\$0.00	\$0.0
949	1.2.2.6.2.4	Magnet Assembly	SLAC	B&H	2	4.8 wks	\$0.00	\$0.00	\$9,594.24	\$9,594.24	\$1,918.85	\$2,878.27	\$14,391.3
\neg		SLAC Mech. Fab: Assembly Tech		B&H	0	4.8 wks	\$0.00	\$0.00	\$0.00	\$9,594.24	\$0.00	\$0.00	\$0.0
950	1.2.2.6.2.5	Fiducialization	SLAC	В&Н	2	1.2 wks	\$0.00	\$0.00	\$2,736.00	\$2,736.00	\$547.20	\$820.80	\$4,104.0
		SLAC Metrology:Eng.& Surveyors		B&H	0	1.2 wks	\$0.00	\$0.00	\$0.00	\$2,736.00	\$0.00	\$0.00	\$0.0
951	1.2.2.6.2.6	Mag Measure	SLAC	B&H	2	1.2 wks	\$0.00	\$0.00	\$2,736.00	\$2,736.00	\$547.20	\$820.80	\$4,104.0
		SLAC Metrology:Eng.& Surveyors		B&H	0	1.2 wks	\$0.00	\$0.00	\$0.00	\$2,736.00	\$0.00	\$0.00	\$0.0
952	1.2.2.6.3	Bend Magnet 4D102.36T			0	3 wks	\$0.00	\$1,000.00	\$7,197.60	\$8,197.60	\$1,499.52	\$2,424.28	\$12,121.4
953	1.2.2.6.3.1	Magnet Materials	SLAC	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$265.00	\$1,325.0
\neg		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.0
954	1.2.2.6.3.2	Magnet Machining	SLAC	B&H	2	1 wk	\$0.00	\$0.00	\$3,200.00	\$3,200.00	\$640.00	\$960.00	\$4,800.0
		SLAC Mech. Fab: Machine Shop		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$3,200.00	\$0.00	\$0.00	\$0.0
955	1.2.2.6.3.3	Mag Coil Winding	SLAC	B&H	2	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
\neg		SLAC Mech. Fab: Assembly Tech		B&H	0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
956	1.2.2.6.3.4	Magnet Assembly	SLAC	B&H	2	2 wks	\$0.00	\$0.00	\$3,997.60	\$3,997.60	\$799.52	\$1,199.28	\$5,996.4
_		SLAC Mech. Fab: Assembly Tech		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$3,997.60	\$0.00	\$0.00	\$0.0
957	1.2.2.6.3.5	Fiducialization	SLAC	B&H	2	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
		SLAC Metrology:Eng.& Surveyors		B&H	0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
958	1.2.2.6.3.6	Mag Measure	SLAC	B&H	2	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
		SLAC Metrology:Eng.& Surveyors		B&H	0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
959	1.2.2.6.4	Bend Magnet VB			0	12 wks	\$0.00	\$15,000.00	\$33,820.16	\$48,820.16	\$7,664.03	\$14,121.05	\$70,605.2

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ID		Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
960	1.2.2.6.4.1	Magnet Materials	SLAC	M&S	2	0 wks	\$0.00	\$15,000.00	\$0.00	\$15,000.00	\$900.00	\$3,975.00	\$19,875.0
		SLAC M&S Total		M&S	0	15,000	\$0.00	\$0.00	\$0.00	\$15,000.00	\$0.00	\$0.00	\$0.0
961	1.2.2.6.4.2	Magnet Machining	SLAC	B&H	2	8 wks	\$0.00	\$0.00	\$25,600.00	\$25,600.00	\$5,120.00	\$7,680.00	\$38,400.
		SLAC Mech. Fab: Machine Shop		B&H	0	8 wks	\$0.00	\$0.00	\$0.00	\$25,600.00	\$0.00	\$0.00	\$0.0
962	1.2.2.6.4.3	Mag Coil Winding	SLAC	B&H	2	2 wks	\$0.00	\$0.00	\$3,997.60	\$3,997.60	\$799.52	\$1,199.28	\$5,996.
\dashv		SLAC Mech. Fab: Assembly Tech		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$3,997.60	\$0.00	\$0.00	\$0.
963	1.2.2.6.4.4	Magnet Assembly	SLAC	B&H	2	1.2 wks	\$0.00	\$0.00	\$2,398.56	\$2,398.56	\$479.71	\$719.57	\$3,597
\dashv		SLAC Mech. Fab: Assembly Tech		B&H	0	1.2 wks	\$0.00	\$0.00	\$0.00	\$2,398.56	\$0.00	\$0.00	\$0.
964	1.2.2.6.4.5	Fiducialization	SLAC	B&H	2	0.4 wks	\$0.00	\$0.00	\$912.00	\$912.00	\$182.40	\$273.60	\$1,368
\dashv		SLAC Metrology:Eng.& Surveyors		B&H	0	0.4 wks	\$0.00	\$0.00	\$0.00	\$912.00	\$0.00	\$0.00	\$0.
965	1.2.2.6.4.6	Mag Measure	SLAC	B&H	2	0.4 wks	\$0.00	\$0.00	\$912.00	\$912.00	\$182.40	\$273.60	\$1,368
\dashv		SLAC Metrology:Eng.& Surveyors		B&H	0	0.4 wks	\$0.00	\$0.00	\$0.00	\$912.00	\$0.00	\$0.00	\$0.
966	1.2.2.6.5	Quad Magnet 1Q5.6			0	15 wks	\$0.00	\$15,000.00	\$41,130.24	\$56,130.24	\$9,126.05	\$16,314.07	\$81,570.
967	1.2.2.6.5.1	Magnet Materials	SLAC	M&S	2	0 wks	\$0.00	\$15,000.00	\$0.00	\$15,000.00	\$900.00	\$3,975.00	\$19,875
		SLAC M&S Total		M&S	0	15,000	\$0.00	\$0.00	\$0.00	\$15,000.00	\$0.00	\$0.00	\$0.
68	1.2.2.6.5.2	Magnet Machining	SLAC	B&H	2	9 wks	\$0.00	\$0.00	\$28,800.00	\$28,800.00	\$5,760.00	\$8,640.00	\$43,200
\dashv		SLAC Mech. Fab: Machine Shop		B&H	0	9 wks	\$0.00	\$0.00	\$0.00	\$28,800.00	\$0.00	\$0.00	\$0
969	1.2.2.6.5.3	·	SLAC	B&H	2	3 wks	\$0.00	\$0.00	\$5,996.40	\$5,996.40	\$1,199.28	\$1,798.92	\$8,994
		SLAC Mech. Fab: Assembly Tech		B&H	0	3 wks	\$0.00	\$0.00	\$0.00	\$5,996,40	\$0.00	\$0.00	\$0.
970	1.2.2.6.5.4		SLAC	B&H	2	1.8 wks	\$0.00	\$0.00	\$3,597.84	\$3,597.84	\$719.57	\$1,079.35	\$5,396
	1.2.2.0.0.4	SLAC Mech. Fab: Assembly Tech	GEAG	B&H	0	1.8 wks	\$0.00	\$0.00	\$0.00	\$3,597.84	\$0.00	\$0.00	\$0
971	1.2.2.6.5.5		SLAC	B&H	2	0.6 wks	\$0.00	\$0.00	\$1,368.00	\$1,368.00	\$273.60	\$410.40	\$2,052
371	1.2.2.0.3.3	SLAC Metrology:Eng.& Surveyors	SEAC	B&H	0	0.6 wks	\$0.00	\$0.00	\$0.00	\$1,368.00	\$0.00	\$0.00	\$2,032
972	1.2.2.6.5.6		SLAC	B&H	2	0.6 wks	\$0.00	\$0.00	\$1,368.00	\$1,368.00	\$273.60	\$410.40	\$2,052
972	1.2.2.0.5.0	-	SLAC		-		•					,	
		SLAC Metrology:Eng.& Surveyors		B&H	0	0.6 wks	\$0.00	\$0.00	\$0.00	\$1,368.00	\$0.00	\$0.00	\$0.
973	1.2.2.6.6	Quadrupole - QA			0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
974	1.2.2.6.6.1	Magnet Materials	SLAC		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
75	1.2.2.6.6.2		SLAC		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
976	1.2.2.6.6.3		SLAC		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
977	1.2.2.6.6.4	Magnet Assembly	SLAC		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
978	1.2.2.6.6.5	Fiducialization	SLAC		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
979	1.2.2.6.6.6	Mag Measure	SLAC		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
980	1.2.2.6.7	Quad Magnet QE			0	30 wks	\$0.00	\$30,000.00	\$82,260.48	\$112,260.48	\$18,252.10	\$32,628.14	\$163,140.
981	1.2.2.6.7.1	Magnet Materials	SLAC	M&S	2	0 wks	\$0.00	\$30,000.00	\$0.00	\$30,000.00	\$1,800.00	\$7,950.00	\$39,750
\dashv		SLAC M&S Total		M&S	0	30,000	\$0.00	\$0.00	\$0.00	\$30,000.00	\$0.00	\$0.00	\$0.

ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
982	1.2.2.6.7.2	Magnet Machining	SLAC	B&H	2	18 wks	\$0.00	\$0.00	\$57,600.00	\$57,600.00	\$11,520.00	\$17,280.00	\$86,400.0
\dashv		SLAC Mech. Fab: Machine Shop		B&H	0	18 wks	\$0.00	\$0.00	\$0.00	\$57,600.00	\$0.00	\$0.00	\$0.0
983	1.2.2.6.7.3	Mag Coil Winding	SLAC	B&H	2	6 wks	\$0.00	\$0.00	\$11,992.80	\$11,992.80	\$2,398.56	\$3,597.84	\$17,989.
_		SLAC Mech. Fab: Assembly Tech		B&H	0	6 wks	\$0.00	\$0.00	\$0.00	\$11,992.80	\$0.00	\$0.00	\$0.
984	1.2.2.6.7.4	ŕ	SLAC	B&H	2	3.6 wks	\$0.00	\$0.00	\$7,195.68	\$7,195.68	\$1,439.14	\$2,158.70	\$10,793
904	1.2.2.0.7.4	Magnet Assembly	SLAC										
		SLAC Mech. Fab: Assembly Tech		B&H	0	3.6 wks	\$0.00	\$0.00	\$0.00	\$7,195.68	\$0.00	\$0.00	\$0
985	1.2.2.6.7.5	Fiducialization	SLAC	B&H	2	1.2 wks	\$0.00	\$0.00	\$2,736.00	\$2,736.00	\$547.20	\$820.80	\$4,104
		SLAC Metrology:Eng.& Surveyors		B&H	0	1.2 wks	\$0.00	\$0.00	\$0.00	\$2,736.00	\$0.00	\$0.00	\$0
986	1.2.2.6.7.6	Mag Measure	SLAC	B&H	2	1.2 wks	\$0.00	\$0.00	\$2,736.00	\$2,736.00	\$547.20	\$820.80	\$4,104
		SLAC Metrology:Eng.& Surveyors		B&H	0	1.2 wks	\$0.00	\$0.00	\$0.00	\$2,736.00	\$0.00	\$0.00	\$0
987	1.2.2.6.8	Quad Magnet 0.91Q17.72			0	20 wks	\$0.00	\$20,000.00	\$54,840.32	\$74,840.32	\$12,168.06	\$21,752.10	\$108,760
988	1.2.2.6.8.1	Magnet Materials	SLAC	M&S	2	0 wks	\$0.00	\$20,000.00	\$0.00	\$20,000.00	\$1,200.00	\$5,300.00	\$26,500
		SLAC M&S Total		M&S	0	20,000	\$0.00	\$0.00	\$0.00	\$20,000.00	\$0.00	\$0.00	\$0
989	1.2.2.6.8.2	Magnet Machining	SLAC	B&H	2	12 wks	\$0.00	\$0.00	\$38,400.00	\$38,400.00	\$7,680.00	\$11,520.00	\$57,600
-		SLAC Mech. Fab: Machine Shop		B&H	0	12 wks	\$0.00	\$0.00	\$0.00	\$38,400.00	\$0.00	\$0.00	\$0
990	1.2.2.6.8.3	Mag Coil Winding	SLAC	B&H	2	4 wks	\$0.00	\$0.00	\$7,995.20	\$7,995.20	\$1,599.04	\$2,398.56	\$11,992
_		SLAC Mech. Fab: Assembly Tech		B&H	0	4 wks	\$0.00	\$0.00	\$0.00	\$7,995.20	\$0.00	\$0.00	\$0
991	1.2.2.6.8.4	Magnet Assembly	SLAC	B&H	2	2.4 wks	\$0.00	\$0.00	\$4,797.12	\$4,797.12	\$959.42	\$1,439.14	\$7,195
	112.2.0.0.1	SLAC Mech. Fab: Assembly Tech	02.10	B&H	0	2.4 wks	\$0.00	\$0.00	\$0.00	\$4,797.12	\$0.00	\$0.00	\$0
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992	1.2.2.6.8.5	Fiducialization	SLAC	B&H	2	0.8 wks	\$0.00	\$0.00	\$1,824.00	\$1,824.00	\$364.80	\$547.20	\$2,736
		SLAC Metrology:Eng.& Surveyors		B&H	0	0.8 wks	\$0.00	\$0.00	\$0.00	\$1,824.00	\$0.00	\$0.00	\$0
993	1.2.2.6.8.6	Mag Measure	SLAC	B&H	2	0.8 wks	\$0.00	\$0.00	\$1,824.00	\$1,824.00	\$364.80	\$547.20	\$2,736
		SLAC Metrology:Eng.& Surveyors		B&H	0	0.8 wks	\$0.00	\$0.00	\$0.00	\$1,824.00	\$0.00	\$0.00	\$0
994	1.2.2.6.9	Correctors			0	28 wks	\$0.00	\$20,000.00	\$85,920.00	\$105,920.00	\$18,384.00	\$31,076.00	\$155,380
995	1.2.2.6.9.1	Magnet Materials	SLAC	M&S	2	0 wks	\$0.00	\$20,000.00	\$0.00	\$20,000.00	\$1,200.00	\$5,300.00	\$26,500
\dashv		SLAC M&S Total		M&S	0	20,000	\$0.00	\$0.00	\$0.00	\$20,000.00	\$0.00	\$0.00	\$0
996	1.2.2.6.9.2	Magnet Machining	SLAC	B&H	2	16 wks	\$0.00	\$0.00	\$51,200.00	\$51,200.00	\$10,240.00	\$15,360.00	\$76,800
\dashv		SLAC Mech. Fab: Machine Shop		B&H	0	16 wks	\$0.00	\$0.00	\$0.00	\$51,200.00	\$0.00	\$0.00	\$0
997	1.2.2.6.9.3	Mag Coil Winding	SLAC	B&H	2	4 wks	\$0.00	\$0.00	\$12,800.00	\$12,800.00	\$2,560.00	\$3,840.00	\$19,200
\dashv		SLAC Mech. Fab: Machine Shop		B&H	0	4 wks	\$0.00	\$0.00	\$0.00	\$12,800.00	\$0.00	\$0.00	\$0
998	1.2.2.6.9.4	Magnet Assembly	SLAC	B&H	2	4 wks	\$0.00	\$0.00	\$12,800.00	\$12,800.00	\$2,560.00	\$3,840.00	\$19,200
_		SLAC Mech. Fab: Machine Shop		B&H	0	4 wks	\$0.00	\$0.00	\$0.00	\$12,800.00	\$0.00	\$0.00	\$0
999	1.2.2.6.9.6	Mag Measure	SLAC	B&H	2	4 wks	\$0.00	\$0.00	\$9,120.00	\$9,120.00	\$1,824.00	\$2,736.00	\$13,680
223	1.2.2.0.9.6	-	SLAC										
		SLAC Metrology:Eng.& Surveyors		B&H	0	4 wks	\$0.00	\$0.00	\$0.00	\$9,120.00	\$0.00	\$0.00	\$0
000	1.2.2.6.10	Dumpline Bend Magnets			0	14.9 wks	\$0.00	\$16,000.00	\$42,019.08	\$58,019.08	\$9,363.82	\$16,845.72	\$84,228.

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ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
2001	1.2.2.6.10.1	Magnet Materials	SLAC	M&S	2	0 wks	\$0.00	\$16,000.00	\$0.00	\$16,000.00	\$960.00	\$4,240.00	\$21,200.0
		SLAC M&S Total		M&S	0	16,000	\$0.00	\$0.00	\$0.00	\$16,000.00	\$0.00	\$0.00	\$0.0
2002	1.2.2.6.10.2	Magnet Machining	SLAC	B&H	2	10 wks	\$0.00	\$0.00	\$32,000.00	\$32,000.00	\$6,400.00	\$9,600.00	\$48,000.0
		SLAC Mech. Fab: Machine Shop		B&H	0	10 wks	\$0.00	\$0.00	\$0.00	\$32,000.00	\$0.00	\$0.00	\$0.0
2003	1.2.2.6.10.3	Mag Coil Winding	SLAC	B&H	2	2.5 wks	\$0.00	\$0.00	\$4,997.00	\$4,997.00	\$999.40	\$1,499.10	\$7,495.5
		SLAC Mech. Fab: Assembly Tech		B&H	0	2.5 wks	\$0.00	\$0.00	\$0.00	\$4,997.00	\$0.00	\$0.00	\$0.0
004	1.2.2.6.10.4	Magnet Assembly	SLAC	B&H	2	1.6 wks	\$0.00	\$0.00	\$3,198.08	\$3,198.08	\$639.62	\$959.42	\$4,797.
		SLAC Mech. Fab: Assembly Tech		B&H	0	1.6 wks	\$0.00	\$0.00	\$0.00	\$3,198.08	\$0.00	\$0.00	\$0.0
005	1.2.2.6.10.5	Fiducialization	SLAC	B&H	2	0.4 wks	\$0.00	\$0.00	\$912.00	\$912.00	\$182.40	\$273.60	\$1,368.
		SLAC Metrology:Eng.& Surveyors		B&H	0	0.4 wks	\$0.00	\$0.00	\$0.00	\$912.00	\$0.00	\$0.00	\$0.0
006	1.2.2.6.10.6	Mag Measure	SLAC	B&H	2	0.4 wks	\$0.00	\$0.00	\$912.00	\$912.00	\$182.40	\$273.60	\$1,368.
		SLAC Metrology:Eng.& Surveyors		B&H	0	0.4 wks	\$0.00	\$0.00	\$0.00	\$912.00	\$0.00	\$0.00	\$0.0
007	1.2.2.6.11	Superconducting wiggler procurement			0	5.2 wks	\$0.00	\$750,000.00	\$10,731.20	\$760,731.20	\$47,146.24	\$201,969.36	\$1,009,846.
800	1.2.2.6.11.1	Magnet			0	0 wks	\$0.00	\$750,000.00	\$0.00	\$750,000.00	\$45,000.00	\$198,750.00	\$993,750.
009	1.2.2.6.11.1	Procurement	SLAC	M&S	2	0 wks	\$0.00	\$750,000.00	\$0.00	\$750,000.00	\$45,000.00	\$198,750.00	\$993,750.
		SLAC M&S Total		M&S	0	750,000	\$0.00	\$0.00	\$0.00	\$750,000.00	\$0.00	\$0.00	\$0.
010	1.2.2.6.11.2	Mag Meas			0	2.6 wks	\$0.00	\$0.00	\$5,365.60	\$5,365.60	\$1,073.12	\$1,609.68	\$8,048.
011	1.2.2.6.11.2	Surveryor	SLAC	B&H	2	0.6 wks	\$0.00	\$0.00	\$1,368.00	\$1,368.00	\$273.60	\$410.40	\$2,052.
		SLAC Metrology:Eng.& Surveyors		B&H	0	0.6 wks	\$0.00	\$0.00	\$0.00	\$1,368.00	\$0.00	\$0.00	\$0.
012	1.2.2.6.11.2	Tech	SLAC	B&H	2	2 wks	\$0.00	\$0.00	\$3,997.60	\$3,997.60	\$799.52	\$1,199.28	\$5,996.
		SLAC Mech. Fab: Assembly Tech		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$3,997.60	\$0.00	\$0.00	\$0.
013	1.2.2.6.11.3	Fiducialize			0	2.6 wks	\$0.00	\$0.00	\$5,365.60	\$5,365.60	\$1,073.12	\$1,609.68	\$8,048.
014	1.2.2.6.11.3	Surveryor	SLAC	B&H	2	0.6 wks	\$0.00	\$0.00	\$1,368.00	\$1,368.00	\$273.60	\$410.40	\$2,052.
		SLAC Metrology:Eng.& Surveyors		B&H	0	0.6 wks	\$0.00	\$0.00	\$0.00	\$1,368.00	\$0.00	\$0.00	\$0.
015	1.2.2.6.11.3	Tech	SLAC	B&H	2	2 wks	\$0.00	\$0.00	\$3,997.60	\$3,997.60	\$799.52	\$1,199.28	\$5,996.
		SLAC Mech. Fab: Assembly Tech		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$3,997.60	\$0.00	\$0.00	\$0.
016	1.2.2.7	Controls			0	157.18 wks	\$0.00	\$1,351,500.00	\$369,252.00	\$1,720,752.00	\$154,991.65	\$480,340.09	\$2,356,083.
017	1.2.2.7.1	Computers and Crates (6)			0	28 wks	\$0.00	\$58,000.00	\$69,331.20	\$127,331.20	\$17,346.24	\$49,583.38	\$194,260.
018	1.2.2.7.1	CAMAC Crates, Control & Support Modules	SLAC	ED&I	3	20 wks	\$0.00	\$0.00	\$50,528.00	\$50,528.00	\$10,105.60	\$21,221.76	\$81,855.
		SLAC Controls: Programmer		ED&I	0	20 wks	\$0.00	\$0.00	\$0.00	\$50,528.00	\$0.00	\$0.00	\$0.
019	1.2.2.7.1	CAMAC Crates, Control & Support Modules	SLAC	M&S	3	0 wks	\$0.00	\$56,000.00	\$0.00	\$56,000.00	\$3,360.00	\$20,776.00	\$80,136
		SLAC M&S Total		M&S	0	56,000	\$0.00	\$0.00	\$0.00	\$56,000.00	\$0.00	\$0.00	\$0.
020	1.2.2.7.1	CAMAC Crates, Control & Support Modules	SLAC	ED&I	3	4 wks	\$0.00	\$0.00	\$11,788.80	\$11,788.80	\$2,357.76	\$4,951.30	\$19,097
		SLAC Controls: Engineer		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$11,788.80	\$0.00	\$0.00	\$0.
021	1.2.2.7.1	Install CAMAC Crates, CTL & Support Modules	SLAC	B&H	2	4 wks	\$0.00	\$0.00	\$7,014.40	\$7,014.40	\$1,402.88	\$2,104.32	\$10,521.

						LCLS_CD1_TEC	;						
ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		SLAC Controls: Technician		B&H	0	4 wks	\$0.00	\$0.00	\$0.00	\$7,014.40	\$0.00	\$0.00	\$0.00
2022	1.2.2.7.1	CAMAC System Cableplant	SLAC	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$530.00	\$2,650.00
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.00
2023	1.2.2.7.2	TIMING DISTRIBUTION SYSTEM-CAMAC			0	29.5 wks	\$0.00	\$45,000.00	\$75,825.60	\$120,825.60	\$17,865.12	\$39,267.34	\$177,958.06
2024	1.2.2.7.2	Distributed Timing Hardware	SLAC	ED&I	3	4 wks	\$0.00	\$0.00	\$11,788.80	\$11,788.80	\$2,357.76	\$4,951.30	\$19,097.86
		SLAC Controls: Engineer		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$11,788.80	\$0.00	\$0.00	\$0.00
2025	1.2.2.7.2	Distributed Timing Hardware	SLAC	M&S	3	0 wks	\$0.00	\$30,000.00	\$0.00	\$30,000.00	\$1,800.00	\$11,130.00	\$42,930.00
		SLAC M&S Total		M&S	0	30,000	\$0.00	\$0.00	\$0.00	\$30,000.00	\$0.00	\$0.00	\$0.00
2026	1.2.2.7.2	Install M&D Timing System Hardware	SLAC	B&H	2	0.5 wks	\$0.00	\$0.00	\$876.80	\$876.80	\$175.36	\$263.04	\$1,315.20
		SLAC Controls: Technician		B&H	0	0.5 wks	\$0.00	\$0.00	\$0.00	\$876.80	\$0.00	\$0.00	\$0.00
2027	1.2.2.7.2	Timing System Heliax Cableplant	SLAC	M&S	2	0 wks	\$0.00	\$15,000.00	\$0.00	\$15,000.00	\$900.00	\$3,975.00	\$19,875.00
		SLAC M&S Total		M&S	0	15,000	\$0.00	\$0.00	\$0.00	\$15,000.00	\$0.00	\$0.00	\$0.00
2028	1.2.2.7.2	Timing Software support	SLAC	ED&I	2	25 wks	\$0.00	\$0.00	\$63,160.00	\$63,160.00	\$12,632.00	\$18,948.00	\$94,740.00
		SLAC Controls: Programmer		ED&I	0	25 wks	\$0.00	\$0.00	\$0.00	\$63,160.00	\$0.00	\$0.00	\$0.00
2029	1.2.2.7.3	LCLS VACUUM SYSTEM (3)			0	8.5 wks	\$0.00	\$5,000.00	\$17,000.00	\$22,000.00	\$3,700.00	\$8,995.00	\$34,695.00
2030	1.2.2.7.3.1	Refurb and Reinstall Dump Vacuum System	SLAC	ED&I	3	6 wks	\$0.00	\$0.00	\$12,000.00	\$12,000.00	\$2,400.00	\$5,040.00	\$19,440.00
		SLAC Controls: Coordinator Assoc.		ED&I	0	6 wks	\$0.00	\$0.00	\$0.00	\$12,000.00	\$0.00	\$0.00	\$0.00
2031	1.2.2.7.3.2		SLAC	M&S	3	0 wks	\$0.00	\$4,000.00	\$0.00	\$4,000.00	\$240.00	\$1,484.00	\$5,724.00
		SLAC M&S Total		M&S	0	4,000	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$0.00
2032	1.2.2.7.3.3		SLAC	M&S	3	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$371.00	\$1,431.00
2032	1.2.2.7.3.3	SLAC M&S Total	SLAC	M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.00
2033	1.2.2.7.3.4		SLAC	ED&I	3	2.5 wks	\$0.00	\$0.00	\$5,000.00	\$5,000.00	\$1,000.00	\$2,100.00	\$8,100.00
2033	1.2.2.7.3.4		SLAC				,,,,,,					, ,	
		SLAC Controls: Coordinator Assoc.		ED&I	0	2.5 wks	\$0.00	\$0.00	\$0.00	\$5,000.00	\$0.00	\$0.00	\$0.00
2034	1.2.2.7.4	TUNE-UP DUMPS (3)			0	4.6 wks	\$0.00	\$20,500.00	\$11,815.36	\$32,315.36	\$3,644.32	\$5,393.95	\$41,353.63
2035	1.2.2.7.4.1	IDIM Module 2)	SLAC	M&S	1	0 wks	\$0.00	\$4,000.00	\$0.00	\$4,000.00	\$240.00	\$636.00	\$4,876.00
		SLAC M&S Total		M&S	0	4,000	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$0.00
2036	1.2.2.7.4.2	IDOM Module (1)	SLAC	B&H	1	1 wk	\$0.00	\$0.00	\$1,753.60	\$1,753.60	\$350.72	\$315.65	\$2,419.97
		SLAC Controls: Technician		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$1,753.60	\$0.00	\$0.00	\$0.00
2037	1.2.2.7.4.3	Profile Monitor Chassis (1)	SLAC	ED&I	1	3 wks	\$0.00	\$0.00	\$8,841.60	\$8,841.60	\$1,768.32	\$1,591.49	\$12,201.41
		SLAC Controls: Engineer		ED&I	0	3 wks	\$0.00	\$0.00	\$0.00	\$8,841.60	\$0.00	\$0.00	\$0.00
2038	1.2.2.7.4.3	Profile Monitor Chassis (1)	SLAC	M&S	1	0 wks	\$0.00	\$13,000.00	\$0.00	\$13,000.00	\$780.00	\$2,067.00	\$15,847.00
		SLAC M&S Total		M&S	0	13,000	\$0.00	\$0.00	\$0.00	\$13,000.00	\$0.00	\$0.00	\$0.00
2039	1.2.2.7.4.4	Multi-conductor (21C/16GA-CONT&STAT) (2)	SLAC	M&S	1	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$318.00	\$2,438.00
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.00
2040	1.2.2.7.4.5	CAMAC cable IDIM (2)	SLAC	B&H	1	0.2 wks	\$0.00	\$0.00	\$406.72	\$406.72	\$98.43	\$75.77	\$580.92

C	CD1	TEC

						LCLS_CD1_TEC	,				ı	T	
ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		ANL PCD:Inst-Cabling-Elec Fab		B&H	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$406.72	\$0.00	\$0.00	\$0.00
2041	1.2.2.7.4.5	CAMAC cable IDIM (2)	SLAC	M&S	1	0 wks	\$0.00	\$600.00	\$0.00	\$600.00	\$36.00	\$95.40	\$731.40
		SLAC M&S Total		M&S	0	600	\$0.00	\$0.00	\$0.00	\$600.00	\$0.00	\$0.00	\$0.00
2042	1.2.2.7.4.6	CAMAC cable IDOM (1)	SLAC	B&H	1	0.2 wks	\$0.00	\$0.00	\$406.72	\$406.72	\$98.43	\$75.77	\$580.92
		ANL PCD:Inst-Cabling-Elec Fab		B&H	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$406.72	\$0.00	\$0.00	\$0.00
2043	1.2.2.7.4.6	CAMAC cable IDOM (1)	SLAC	M&S	1	0 wks	\$0.00	\$600.00	\$0.00	\$600.00	\$36.00	\$95.40	\$731.40
		SLAC M&S Total		M&S	0	600	\$0.00	\$0.00	\$0.00	\$600.00	\$0.00	\$0.00	\$0.00
2044	1.2.2.7.4.7	WIRING OF TD ASSEMBLY IN LAB (1)	SLAC	B&H	1	0.2 wks	\$0.00	\$0.00	\$406.72	\$406.72	\$98.43	\$75.77	\$580.92
		ANL PCD:Inst-Cabling-Elec Fab		B&H	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$406.72	\$0.00	\$0.00	\$0.00
2045	1.2.2.7.4.7	WIRING OF TD ASSEMBLY IN LAB (1)	SLAC	M&S	1	0 wks	\$0.00	\$300.00	\$0.00	\$300.00	\$18.00	\$47.70	\$365.70
		SLAC M&S Total		M&S	0	300	\$0.00	\$0.00	\$0.00	\$300.00	\$0.00	\$0.00	\$0.00
2046	1.2.2.7.5			,,,,do	0	14.48 wks	\$0.00	\$143,300.00	\$33,105.66	\$176,405.66	\$15,219.13	\$32,660.45	\$224,285.24
	1.2.2.7.5.1		81.40	B&H	0		\$0.00	\$143,300.00	\$350.72	\$350.72	\$70.14	\$63.13	\$483.99
2047	1.2.2.7.5.1	Power Supply EMI 20v@50A (1)	SLAC		1	0.2 wks							
		SLAC Controls: Technician		B&H	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$350.72	\$0.00	\$0.00	\$0.00
2048	1.2.2.7.5.1	Power Supply EMI 20v@50A (1)	SLAC	M&S	1	0 wks	\$0.00	\$4,000.00	\$0.00	\$4,000.00	\$240.00	\$636.00	\$4,876.00
		SLAC M&S Total		M&S	0	4,000	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$0.00
2049	1.2.2.7.5.2	DATRONICS Controller (MN 10k-1) (1)	SLAC	ED&I	1	6 wks	\$0.00	\$0.00	\$17,683.20	\$17,683.20	\$3,536.64	\$3,182.98	\$24,402.82
		SLAC Controls: Engineer		ED&I	0	6 wks	\$0.00	\$0.00	\$0.00	\$17,683.20	\$0.00	\$0.00	\$0.00
2050	1.2.2.7.5.2	DATRONICS Controller (MN 10k-1) (1)	SLAC	M&S	1	0 wks	\$0.00	\$11,000.00	\$0.00	\$11,000.00	\$660.00	\$1,749.00	\$13,409.00
		SLAC M&S Total		M&S	0	11,000	\$0.00	\$0.00	\$0.00	\$11,000.00	\$0.00	\$0.00	\$0.00
2051	1.2.2.7.5.3	LVDT PCB (8)	SLAC	B&H	2	0.6 wks	\$0.00	\$0.00	\$1,052.16	\$1,052.16	\$210.43	\$315.65	\$1,578.24
		SLAC Controls: Technician		B&H	0	0.6 wks	\$0.00	\$0.00	\$0.00	\$1,052.16	\$0.00	\$0.00	\$0.00
2052	1.2.2.7.5.3	LVDT PCB (8)	SLAC	M&S	2	0 wks	\$0.00	\$4,000.00	\$0.00	\$4,000.00	\$240.00	\$1,060.00	\$5,300.00
		SLAC M&S Total		M&S	0	4,000	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$0.00
2053	1.2.2.7.5.4		SLAC	B&H	2	0.6 wks	\$0.00	\$0.00	\$1,052.16	\$1,052.16	\$210.43	\$315.65	\$1,578.24
2000	1.2.2.7.5.4		SLAC										
		SLAC Controls: Technician		B&H	0	0.6 wks	\$0.00	\$0.00	\$0.00	\$1,052.16	\$0.00	\$0.00	\$0.00
2054	1.2.2.7.5.4	, ,	SLAC	M&S	2	0 wks	\$0.00	\$18,000.00	\$0.00	\$18,000.00	\$1,080.00	\$4,770.00	\$23,850.00
		SLAC M&S Total		M&S	0	18,000	\$0.00	\$0.00	\$0.00	\$18,000.00	\$0.00	\$0.00	\$0.00
2055	1.2.2.7.5.5	10 Channel Resistor Interface Chassis (1)	SLAC	M&S	2	0 wks	\$0.00	\$5,000.00	\$0.00	\$5,000.00	\$300.00	\$1,325.00	\$6,625.00
		SLAC M&S Total		M&S	0	5,000	\$0.00	\$0.00	\$0.00	\$5,000.00	\$0.00	\$0.00	\$0.00
2056	1.2.2.7.5.5	10 Channel Resistor Interface Chassis (1)	SLAC	ED&I	2	2 wks	\$0.00	\$0.00	\$4,000.00	\$4,000.00	\$800.00	\$1,200.00	\$6,000.00
		SLAC Controls: Coordinator Assoc.		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$0.00
2057	1.2.2.7.5.6	CAMAC Module, SAM (1)	SLAC	B&H	1	0.2 wks	\$0.00	\$0.00	\$350.72	\$350.72	\$70.14	\$63.13	\$483.99
		SLAC Controls: Technician		B&H	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$350.72	\$0.00	\$0.00	\$0.00
2058	1.2.2.7.5.6	CAMAC Module, SAM (1)	SLAC	M&S	1	0 wks	\$0.00	\$6,000.00	\$0.00	\$6,000.00	\$360.00	\$954.00	\$7,314.00
						- 1110	\$3.00	40,000	\$6.00	Ţ-,0.00	1220.00		

101	0	CD4	TEC
LUL		CUI	TEC

ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		SLAC M&S Total		M&S	0	6,000	\$0.00	\$0.00	\$0.00	\$6,000.00	\$0.00	\$0.00	\$0.0
2059	1.2.2.7.5.7		SLAC	B&H	1	0.2 wks	\$0.00	\$0.00	\$350.72	\$350.72	\$70.14	\$63.13	\$483.9
		SLAC Controls: Technician		B&H	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$350.72	\$0.00	\$0.00	\$0.0
:060	1.2.2.7.5.7	CAMAC Module, GADC (1)	SLAC	M&S	1	0 wks	\$0.00	\$8,000.00	\$0.00	\$8,000.00	\$480.00	\$1,272.00	\$9,752.0
		SLAC M&S Total		M&S	0	8,000	\$0.00	\$0.00	\$0.00	\$8,000.00	\$0.00	\$0.00	\$0.0
2061	1.2.2.7.5.8	CAMAC Module, PDGG (1)	SLAC	B&H	1	0.2 wks	\$0.00	\$0.00	\$350.72	\$350.72	\$70.14	\$63.13	\$483.9
		SLAC Controls: Technician		B&H	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$350.72	\$0.00	\$0.00	\$0.0
062	1.2.2.7.5.8	CAMAC Module, PDGG (1)	SLAC	M&S	1	0 wks	\$0.00	\$5,000.00	\$0.00	\$5,000.00	\$300.00	\$795.00	\$6,095.0
		SLAC M&S Total		M&S	0	5,000	\$0.00	\$0.00	\$0.00	\$5,000.00	\$0.00	\$0.00	\$0.0
:063	1.2.2.7.5.9	CAMAC Module, DAC (1)	SLAC	B&H	1	0.2 wks	\$0.00	\$0.00	\$350.72	\$350.72	\$70.14	\$63.13	\$483.9
		SLAC Controls: Technician		B&H	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$350.72	\$0.00	\$0.00	\$0.0
064	1.2.2.7.5.9	CAMAC Module, DAC (1)	SLAC	M&S	1	0 wks	\$0.00	\$7,000.00	\$0.00	\$7,000.00	\$420.00	\$1,113.00	\$8,533.0
		SLAC M&S Total		M&S	0	7,000	\$0.00	\$0.00	\$0.00	\$7,000.00	\$0.00	\$0.00	\$0.0
065	1.2.2.7.5.10	CAMAC Module, Stepper Motor Controller, SMC-24BP (4)	SLAC	B&H	1	2 wks	\$0.00	\$0.00	\$3,507.20	\$3,507.20	\$701.44	\$631.30	\$4,839.9
		SLAC Controls: Technician		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$3,507.20	\$0.00	\$0.00	\$0.0
066	1.2.2.7.5.10		SLAC	M&S		0 wks	\$0.00	\$22,000.00	\$0.00	\$22,000.00	\$1,320.00	\$3,498.00	\$26,818.
000	1.2.2.7.5.10		SLAC		'								
		SLAC M&S Total		M&S	0	22,000	\$0.00	\$0.00	\$0.00	\$22,000.00	\$0.00	\$0.00	\$0.0
067	1.2.2.7.5.11	``'	SLAC	B&H	2	0.02 wks	\$0.00	\$0.00	\$35.07	\$35.07	\$7.01	\$10.52	\$52.6
		SLAC Controls: Technician		B&H	0	0.02 wks	\$0.00	\$0.00	\$0.00	\$35.07	\$0.00	\$0.00	\$0.0
890	1.2.2.7.5.11	16 Channel Interface Chassis (1)	SLAC	M&S	2	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$180.00	\$795.00	\$3,975.
		SLAC M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0.0
:069	1.2.2.7.5.12	HV P.S., 8 CH. BEAMSTRAHLUNG CH. (1)	SLAC	B&H	1	0.02 wks	\$0.00	\$0.00	\$35.07	\$35.07	\$7.01	\$6.31	\$48.
		SLAC Controls: Technician		B&H	0	0.02 wks	\$0.00	\$0.00	\$0.00	\$35.07	\$0.00	\$0.00	\$0.0
070	1.2.2.7.5.12	HV P.S., 8 CH. BEAMSTRAHLUNG CH. (1)	SLAC	M&S	1	0 wks	\$0.00	\$9,000.00	\$0.00	\$9,000.00	\$540.00	\$1,431.00	\$10,971.0
		SLAC M&S Total		M&S	0	9,000	\$0.00	\$0.00	\$0.00	\$9,000.00	\$0.00	\$0.00	\$0.0
071	1.2.2.7.5.13	Photo-multiplier Tube Electronics Assem., Phillips (4)	SLAC	B&H	1	2 wks	\$0.00	\$0.00	\$3,507.20	\$3,507.20	\$701.44	\$631.30	\$4,839.9
		SLAC Controls: Technician		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$3,507.20	\$0.00	\$0.00	\$0.0
072	1.2.2.7.5.13	Photo-multiplier Tube Electronics Assem., Phillips (4)	SLAC	M&S	1	0 wks	\$0.00	\$14,000.00	\$0.00	\$14,000.00	\$840.00	\$2,226.00	\$17,066.
		SLAC M&S Total		M&S	0	14,000	\$0.00	\$0.00	\$0.00	\$14,000.00	\$0.00	\$0.00	\$0.
073	1.2.2.7.5.14		SLAC	M&S	1	0 wks	\$0.00	\$4,000.00	\$0.00	\$4,000.00	\$240.00	\$636.00	\$4,876.
073	1.2.2.7.3.14		JLAC	M&S	'		\$0.00						
074	1227545	SLAC M&S Total	01.40		0	4,000		\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$0.
074	1.2.2.7.5.15	, ,	SLAC	M&S	1	0 wks	\$0.00	\$8,000.00	\$0.00	\$8,000.00	\$480.00	\$1,272.00	\$9,752.
		SLAC M&S Total		M&S	0	8,000	\$0.00	\$0.00	\$0.00	\$8,000.00	\$0.00	\$0.00	\$0.0
075	1.2.2.7.5.16	MULTI-COND (12/C) REST. CH. TO SMC MODULE	SLAC	B&H	1	0.06 wks	\$0.00	\$0.00	\$120.00	\$120.00	\$24.00	\$21.60	\$165.0
		SLACL PCD:Inst-Cabling-Elec Fab		B&H	0	0.06 wks	\$0.00	\$0.00	\$0.00	\$120.00	\$0.00	\$0.00	\$0.0

ID 2076	CWBS	Task Name	OBS	PHASE M&S	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
2076	1.2.2.7.5.16	, ,	SLAC		1	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$318.00	\$2,438.0
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.0
:077	1.2.2.7.5.17		SLAC	B&H	1	0.06 wks	\$0.00	\$0.00	\$120.00	\$120.00	\$24.00	\$21.60	\$165.6
		SLACL PCD:Inst-Cabling-Elec Fab		B&H	0	0.06 wks	\$0.00	\$0.00	\$0.00	\$120.00	\$0.00	\$0.00	\$0.0
2078	1.2.2.7.5.17	MULTI-COND (12/C) REST. CH. TO WIRE SCANNER	SLAC	M&S	1	0 wks	\$0.00	\$6,000.00	\$0.00	\$6,000.00	\$360.00	\$954.00	\$7,314.
		SLAC M&S Total		M&S	0	6,000	\$0.00	\$0.00	\$0.00	\$6,000.00	\$0.00	\$0.00	\$0.0
2079	1.2.2.7.5.18	CAMAC CABLE (36/C)16 CHNL DIST. TO SAM	SLAC	B&H	1	0.06 wks	\$0.00	\$0.00	\$120.00	\$120.00	\$24.00	\$21.60	\$165.
		SLACL PCD:Inst-Cabling-Elec Fab		B&H	0	0.06 wks	\$0.00	\$0.00	\$0.00	\$120.00	\$0.00	\$0.00	\$0.
2080	1.2.2.7.5.18	CAMAC CABLE (36/C)16 CHNL DIST. TO SAM	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219.
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.0
2081	1.2.2.7.5.19	SINGLE-COND P.S. TO REST. CH.	SLAC	B&H	1	0.06 wks	\$0.00	\$0.00	\$120.00	\$120.00	\$24.00	\$21.60	\$165.
		SLACL PCD:Inst-Cabling-Elec Fab		B&H	0	0.06 wks	\$0.00	\$0.00	\$0.00	\$120.00	\$0.00	\$0.00	\$0.
082	1.2.2.7.5.19	SINGLE-COND P.S. TO REST. CH.	SLAC	M&S	1	0 wks	\$0.00	\$300.00	\$0.00	\$300.00	\$18.00	\$47.70	\$365.
		SLAC M&S Total		M&S	0	300	\$0.00	\$0.00	\$0.00	\$300.00	\$0.00	\$0.00	\$0.
083	1.2.2.7.5.20	WIRING OF WIRE SCANNER ASSEMBLY IN LAB (4)	SLAC	M&S	1	0 wks	\$0.00	\$6,000.00	\$0.00	\$6,000.00	\$360.00	\$954.00	\$7,314.
		SLAC M&S Total		M&S	0	6,000	\$0.00	\$0.00	\$0.00	\$6,000.00	\$0.00	\$0.00	\$0.
084	1.2.2.7.6	BPM's (136)w/ 6 Linac / 2 Special / 2 Dump			0	45.2 wks	\$0.00	\$916,000.00	\$96,272.64	\$1,012,272.64	\$74,214.53	\$278,090.79	\$1,364,577.
2085	1.2.2.7.6.1	BPM ProcessorModules (136 , 1 SPARES)	SLAC	ED&I	2	6.2 wks	\$0.00	\$0.00	\$18,272.64	\$18,272.64	\$3,654.53	\$5,481.79	\$27,408.
		SLAC Controls: Engineer		ED&I	0	6.2 wks	\$0.00	\$0.00	\$0.00	\$18,272.64	\$0.00	\$0.00	\$0.
2086	1.2.2.7.6.1	BPM ProcessorModules (136 , 1 SPARES)	SLAC	M&S	2	0 wks	\$0.00	\$272,000.00	\$0.00	\$272,000.00	\$16,320.00	\$72,080.00	\$360,400.
.000	1.2.2.7.0.1	SLAC M&S Total	JEAC	M&S	0	272,000	\$0.00	\$0.00	\$0.00	\$272,000.00	\$0.00	\$0.00	\$0.
2087	100700		SLAC	ED&I		1.5 wks	\$0.00			\$3,000.00		\$540.00	\$4,140.
2087	1.2.2.7.6.2	·	SLAC		1			\$0.00	\$3,000.00		\$600.00		
		SLAC Controls: Coordinator Assoc.		ED&I	0	1.5 wks	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0.
2088	1.2.2.7.6.2	, , ,	SLAC	M&S	1	0 wks	\$0.00	\$42,000.00	\$0.00	\$42,000.00	\$2,520.00	\$6,678.00	\$51,198.
		SLAC M&S Total		M&S	0	42,000	\$0.00	\$0.00	\$0.00	\$42,000.00	\$0.00	\$0.00	\$0.
2089	1.2.2.7.6.3	Head Amp. Modules (136, 1 SPARES)	SLAC	ED&I	2	1.5 wks	\$0.00	\$0.00	\$3,000.00	\$3,000.00	\$600.00	\$900.00	\$4,500.
		SLAC Controls: Coordinator Assoc.		ED&I	0	1.5 wks	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0.
090	1.2.2.7.6.3	Head Amp. Modules (136, 1 SPARES)	SLAC	M&S	2	0 wks	\$0.00	\$272,000.00	\$0.00	\$272,000.00	\$16,320.00	\$72,080.00	\$360,400.
		SLAC M&S Total		M&S	0	272,000	\$0.00	\$0.00	\$0.00	\$272,000.00	\$0.00	\$0.00	\$0.
091	1.2.2.7.6.4	Test Pulse Generator Modules (6)	SLAC	ED&I	1	2 wks	\$0.00	\$0.00	\$4,000.00	\$4,000.00	\$800.00	\$720.00	\$5,520.
		SLAC Controls: Coordinator Assoc.		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$0.
092	1.2.2.7.6.4	Test Pulse Generator Modules (6)	SLAC	M&S	1	0 wks	\$0.00	\$259,000.00	\$0.00	\$259,000.00	\$15,540.00	\$41,181.00	\$315,721.
		SLAC M&S Total		M&S	0	259,000	\$0.00	\$0.00	\$0.00	\$259,000.00	\$0.00	\$0.00	\$0.
093	1.2.2.7.6.5	Controls Technician	SLAC	ED&I	4	20 wks	\$0.00	\$0.00	\$40,000.00	\$40,000.00	\$8,000.00	\$24,000.00	\$72,000.
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ID OOO4	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
2094	1.2.2.7.6.6	, , , , , , , , , , , , , , , , , , , ,	SLAC	M&S	4	0 wks	\$0.00	\$43,000.00	\$0.00	\$43,000.00	\$2,580.00	\$22,790.00	\$68,370.0
		SLAC M&S Total		M&S	0	43,000	\$0.00	\$0.00	\$0.00	\$43,000.00	\$0.00	\$0.00	\$0.0
2095	1.2.2.7.6.7	RG223 Pigtails (8 ea BPM, timed and matched, 10')	SLAC	B&H	4	2 wks	\$0.00	\$0.00	\$4,000.00	\$4,000.00	\$800.00	\$2,400.00	\$7,200.0
		SLACL PCD:Inst-Cabling-Elec Fab		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$0.0
2096	1.2.2.7.6.7	RG223 Pigtails (8 ea BPM, timed and matched, 10')	SLAC	M&S	4	0 wks	\$0.00	\$28,000.00	\$0.00	\$28,000.00	\$1,680.00	\$14,840.00	\$44,520.0
		SLAC M&S Total		M&S	0	28,000	\$0.00	\$0.00	\$0.00	\$28,000.00	\$0.00	\$0.00	\$0.0
2097	1.2.2.7.6.8	Technician BPM Initial Calibration (136 *4mh=12wks)	SLAC	ED&I	4	12 wks	\$0.00	\$0.00	\$24,000.00	\$24,000.00	\$4,800.00	\$14,400.00	\$43,200.0
		SLAC Controls: Coordinator Assoc.		ED&I	0	12 wks	\$0.00	\$0.00	\$0.00	\$24,000.00	\$0.00	\$0.00	\$0.0
2098	1.2.2.7.7	TOROIDS (7) w/ BC's and Dump			0	8.3 wks	\$0.00	\$46,700.00	\$18,253.44	\$64,953.44	\$6,452.69	\$10,710.92	\$82,117.0
2099	1.2.2.7.7.1	CAMAC Module, TCM (7)	SLAC	ED&I	1	2.5 wks	\$0.00	\$0.00	\$7,368.00	\$7,368.00	\$1,473.60	\$1,326.24	\$10,167.8
		SLAC Controls: Engineer		ED&I	0	2.5 wks	\$0.00	\$0.00	\$0.00	\$7,368.00	\$0.00	\$0.00	\$0.0
2100	1.2.2.7.7.1	CAMAC Module, TCM (7)	SLAC	M&S	1	0 wks	\$0.00	\$15,000.00	\$0.00	\$15,000.00	\$900.00	\$2,385.00	\$18,285.0
		SLAC M&S Total		M&S	0	15,000	\$0.00	\$0.00	\$0.00	\$15,000.00	\$0.00	\$0.00	\$0.0
2101	1.2.2.7.7.2	TCM PreAmps (7)	SLAC	ED&I	1	1.4 wks	\$0.00	\$0.00	\$2,800.00	\$2,800.00	\$560.00	\$504.00	\$3,864.0
		SLAC Controls: Coordinator Assoc.		ED&I	0	1.4 wks	\$0.00	\$0.00	\$0.00	\$2,800.00	\$0.00	\$0.00	\$0.0
102	1.2.2.7.7.2		SLAC	M&S	1	0 wks	\$0.00	\$21,000.00	\$0.00	\$21,000.00	\$1,260.00	\$3,339.00	\$25,599.0
102	1.2.2.7.7.2	SLAC M&S Total	SLAC	M&S	'		\$0.00		\$0.00			\$0.00	
					0	21,000		\$0.00		\$21,000.00	\$0.00		\$0.0
2103	1.2.2.7.7.3		SLAC	B&H	1	1.5 wks	\$0.00	\$0.00	\$3,000.00	\$3,000.00	\$600.00	\$540.00	\$4,140.0
		SLACL PCD:Inst-Cabling-Elec Fab		B&H	0	1.5 wks	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0.0
2104	1.2.2.7.7.3	Lead Shielding (12 Bricks/Unit) (7)	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219.0
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.0
2105	1.2.2.7.7.4	Steel Covers (7)	SLAC	B&H	1	1.3 wks	\$0.00	\$0.00	\$2,279.68	\$2,279.68	\$455.94	\$410.34	\$3,145.9
		SLAC PCD:Technician		B&H	0	1.3 wks	\$0.00	\$0.00	\$0.00	\$2,279.68	\$0.00	\$0.00	\$0.0
2106	1.2.2.7.7.4	Steel Covers (7)	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219.0
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.0
2107	1.2.2.7.7.5	Platforms (7)	SLAC	B&H	1	1.3 wks	\$0.00	\$0.00	\$2,279.68	\$2,279.68	\$455.94	\$410.34	\$3,145.9
		SLAC PCD:Technician		B&H	0	1.3 wks	\$0.00	\$0.00	\$0.00	\$2,279.68	\$0.00	\$0.00	\$0.0
2108	1.2.2.7.7.5	Platforms (7)	SLAC	M&S	1	0 wks	\$0.00	\$700.00	\$0.00	\$700.00	\$42.00	\$111.30	\$853.3
		SLAC M&S Total		M&S	0	700	\$0.00	\$0.00	\$0.00	\$700.00	\$0.00	\$0.00	\$0.0
2109	1.2.2.7.7.6	Adapter Box, RG22 to Twinax (2 each toroid)	SLAC	B&H	1	0.1 wks	\$0.00	\$0.00	\$175.36	\$175.36	\$35.07	\$31.56	\$242.0
		SLAC PCD:Technician		B&H	0	0.1 wks	\$0.00	\$0.00	\$0.00	\$175.36	\$0.00	\$0.00	\$0.0
2110	1.2.2.7.7.6		SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219.0
-		SLAC M&S Total	-	M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.0
2111	1.2.2.7.7.7		SLAC	B&H	1	0.1 wks	\$0.00	\$0.00	\$175.36	\$175.36	\$35.07	\$31.56	\$242.0
	1.2.2.1.1.1	SLAC Controls: Technician	SLAC	B&H	0	0.1 wks	\$0.00	\$0.00	\$0.00	\$175.36	\$0.00	\$0.00	\$0.0

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ID		Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
2112	1.2.2.7.7.7	RG22, TCM PreAmp to Toroid (1 each toroid))	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219.0
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.00
2113	1.2.2.7.7.8	RG214, TCM PreAmp to Toroid (1)	SLAC	B&H	1	0.1 wks	\$0.00	\$0.00	\$175.36	\$175.36	\$35.07	\$31.56	\$242.0
		SLAC Controls: Technician		B&H	0	0.1 wks	\$0.00	\$0.00	\$0.00	\$175.36	\$0.00	\$0.00	\$0.00
2114	1.2.2.7.7.8	RG214, TCM PreAmp to Toroid (1)	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219.0
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.00
2115	1.2.2.7.7.9	RG22, TCM to TCM PreAmp (2)	SLAC	M&S	1	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$180.00	\$477.00	\$3,657.0
		SLAC M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0.00
2116	1.2.2.7.7.10	2/c power, TCM to TCM PreAmp (1 each toroid)	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219.0
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.00
2117	1.2.2.7.7.11	RG58, TCM to TCM PreAmp (1 each toroid))	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219.0
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.00
2118	1.2.2.7.8	PROFILE MONITORS (4) w/ 1 Dump			0	7.4 wks	\$0.00	\$53,000.00	\$16,468.96	\$69,468.96	\$6,473.79	\$15,761.05	\$91,703.8
2119	1.2.2.7.8.1	CAMAC Module, DAC (4)	SLAC	B&H	1	0.03 wks	\$0.00	\$0.00	\$52.61	\$52.61	\$10.52	\$9.47	\$72.6
		SLAC Controls: Technician		B&H	0	0.03 wks	\$0.00	\$0.00	\$0.00	\$52.61	\$0.00	\$0.00	\$0.00
2120	1.2.2.7.8.1	CAMAC Module, DAC (4)	SLAC	M&S	1	0 wks	\$0.00	\$7,000.00	\$0.00	\$7,000.00	\$420.00	\$1,113.00	\$8,533.0
		SLAC M&S Total		M&S	0	7,000	\$0.00	\$0.00	\$0.00	\$7,000.00	\$0.00	\$0.00	\$0.00
2121	1.2.2.7.8.2	CAMAC Module, IDIM (4)	SLAC	B&H	1	0.03 wks	\$0.00	\$0.00	\$52.61	\$52.61	\$10.52	\$9.47	\$72.6
		SLAC Controls: Technician		B&H	0	0.03 wks	\$0.00	\$0.00	\$0.00	\$52.61	\$0.00	\$0.00	\$0.00
2122	1.2.2.7.8.2	CAMAC Module, IDIM (4)	SLAC	M&S	1	0 wks	\$0.00	\$4,000.00	\$0.00	\$4,000.00	\$240.00	\$636.00	\$4,876.0
		SLAC M&S Total		M&S	0	4,000	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$0.0
2123	1.2.2.7.8.3	CAMAC Module,IDOM (4)	SLAC	B&H	1	0.03 wks	\$0.00	\$0.00	\$52.61	\$52.61	\$10.52	\$9.47	\$72.6
		SLAC Controls: Technician		B&H	0	0.03 wks	\$0.00	\$0.00	\$0.00	\$52.61	\$0.00	\$0.00	\$0.00
2124	1.2.2.7.8.3	CAMAC Module,IDOM (4)	SLAC	M&S	1	0 wks	\$0.00	\$4,000.00	\$0.00	\$4,000.00	\$240.00	\$636.00	\$4,876.0
		SLAC M&S Total		M&S	0	4,000	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$0.00
2125	1.2.2.7.8.4	Video Modulator Chassis (4)	SLAC	B&H	1	0.03 wks	\$0.00	\$0.00	\$52.61	\$52.61	\$10.52	\$9.47	\$72.6
2125	1.2.2.7.0.4	SLAC Controls: Technician	SLAC	B&H	0	0.03 wks	\$0.00	\$0.00	\$0.00	\$52.61	\$0.00	\$0.00	\$0.00
2126	1.2.2.7.8.4	Video Modulator Chassis (4)	SLAC	M&S	0	0.03 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$180.00	\$477.00	\$3,657.0
2120	1.2.2.7.0.4	SLAC M&S Total	SLAC				\$0.00		\$0.00				
				M&S	0	3,000		\$0.00		\$3,000.00	\$0.00	\$0.00	\$0.00
2127	1.2.2.7.8.5	, ,	SLAC	B&H	2	0.03 wks	\$0.00	\$0.00	\$52.61	\$52.61	\$10.52	\$15.78	\$78.9
		SLAC Controls: Technician		B&H	0	0.03 wks	\$0.00	\$0.00	\$0.00	\$52.61	\$0.00	\$0.00	\$0.00
2128	1.2.2.7.8.5		SLAC	M&S	2	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$180.00	\$795.00	\$3,975.0
		SLAC M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0.00
2129	1.2.2.7.8.6	Profile Monitor Lamp Units (4)	SLAC	B&H	1	0.7 wks	\$0.00	\$0.00	\$1,227.52	\$1,227.52	\$245.50	\$220.95	\$1,693.9
		SLAC Controls: Technician		B&H	0	0.7 wks	\$0.00	\$0.00	\$0.00	\$1,227.52	\$0.00	\$0.00	\$0.00

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ID		Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
2130	1.2.2.7.8.6	Profile Monitor Lamp Units (4)	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219.0
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.0
131	1.2.2.7.8.7	Profile Monitor Chassis (4)	SLAC	ED&I	2	2 wks	\$0.00	\$0.00	\$5,894.40	\$5,894.40	\$1,178.88	\$1,768.32	\$8,841.6
		SLAC Controls: Engineer		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$5,894.40	\$0.00	\$0.00	\$0.0
132	1.2.2.7.8.7	Profile Monitor Chassis (4)	SLAC	M&S	2	0 wks	\$0.00	\$14,000.00	\$0.00	\$14,000.00	\$840.00	\$3,710.00	\$18,550.0
		SLAC M&S Total		M&S	0	14,000	\$0.00	\$0.00	\$0.00	\$14,000.00	\$0.00	\$0.00	\$0.0
133	1.2.2.7.8.8	Profile Monitor Camera/Electronics (4)	SLAC	ED&I	2	3.75 wks	\$0.00	\$0.00	\$7,500.00	\$7,500.00	\$1,500.00	\$2,250.00	\$11,250.0
		SLAC Controls: Coordinator Assoc.		ED&I	0	3.75 wks	\$0.00	\$0.00	\$0.00	\$7,500.00	\$0.00	\$0.00	\$0.
134	1.2.2.7.8.8	Profile Monitor Camera/Electronics (4)	SLAC	M&S	2	0 wks	\$0.00	\$9,000.00	\$0.00	\$9,000.00	\$540.00	\$2,385.00	\$11,925.
		SLAC M&S Total		M&S	0	9,000	\$0.00	\$0.00	\$0.00	\$9,000.00	\$0.00	\$0.00	\$0.0
135	1.2.2.7.8.9	RG59, coax-video (4)	SLAC	M&S		0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00		\$1,219.
133	1.2.2.7.6.9		SLAC	M&S	'		\$0.00						
		SLAC M&S Total			0	1,000	,,,,,,	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.
136	1.2.2.7.8.10	Multi-conductor (21C/16GA-CONT&STAT) (4)	SLAC	M&S	1	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00		\$2,438.
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.
137	1.2.2.7.8.11	Multi-conductor (3C/16GA-AC POWER) (4)	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.
138	1.2.2.7.8.12	CAMAC cable IDIM (4)	SLAC	B&H	1	0.3 wks	\$0.00	\$0.00	\$600.00	\$600.00	\$120.00	\$108.00	\$828
		SLACL PCD:Inst-Cabling-Elec Fab		B&H	0	0.3 wks	\$0.00	\$0.00	\$0.00	\$600.00	\$0.00	\$0.00	\$0.
139	1.2.2.7.8.12	CAMAC cable IDIM (4)	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219.
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.
140	1.2.2.7.8.13	CAMAC cable IDOM (4)	SLAC	B&H	1	0.3 wks	\$0.00	\$0.00	\$600.00	\$600.00	\$120.00	\$108.00	\$828
		SLACL PCD:Inst-Cabling-Elec Fab		B&H	0	0.3 wks	\$0.00	\$0.00	\$0.00	\$600.00	\$0.00	\$0.00	\$0.
141	1.2.2.7.8.13	-	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00		\$1,219.
141	1.2.2.7.0.13	SLAC M&S Total	JEAC	M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.
							,,,,,,		,				
142	1.2.2.7.8.14	CAMAC cable DAC (4)	SLAC	ED&I	1	0.2 wks	\$0.00	\$0.00	\$384.00	\$384.00	\$76.80		\$529.
		SLAC PCD:Coordinator Associate		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$384.00	\$0.00	\$0.00	\$0.
143	1.2.2.7.8.14	CAMAC cable DAC (4)	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.
144	1.2.2.7.8.15	WIRING OF PROFILE MONT. ASSEMBLY IN LAB (4)	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219
\dashv		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.
145	1.2.2.7.9	E-O Diagnostic			0	2.04 wks	\$0.00	\$5,200.00	\$5,372.67	\$10,572.67	\$1,386.53	\$1,793.88	\$13,753.
146	1.2.2.7.9.1	Profile Monitor Camera/Electronics	SLAC	ED&I	1	1.5 wks	\$0.00	\$0.00	\$4,420.80	\$4,420.80	\$884.16	\$795.74	\$6,100
-		SLAC Controls: Engineer		ED&I	0	1.5 wks	\$0.00	\$0.00	\$0.00	\$4,420.80	\$0.00	\$0.00	\$0.
147	1.2.2.7.9.1	Profile Monitor Camera/Electronics	SLAC	M&S	1	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$180.00	\$477.00	\$3,657
		SLAC M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00		\$0.

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ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
2148	1.2.2.7.9.1	CAMAC Module,IDOM (1)	SLAC	B&H	1	0.02 wks	\$0.00	\$0.00	\$35.07	\$35.07	\$7.01	\$6.31	\$48.4
		SLAC Controls: Technician		B&H	0	0.02 wks	\$0.00	\$0.00	\$0.00	\$35.07	\$0.00	\$0.00	\$0.00
2149	1.2.2.7.9.1	CAMAC Module,IDOM (1)	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219.0
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.00
2150	1.2.2.7.9.1	CAMAC cable IDOM (1)	SLAC	B&H	1	0.02 wks	\$0.00	\$0.00	\$40.00	\$40.00	\$8.00	\$7.20	\$55.2
		SLACL PCD:Inst-Cabling-Elec Fab		B&H	0	0.02 wks	\$0.00	\$0.00	\$0.00	\$40.00	\$0.00	\$0.00	\$0.00
2151	1.2.2.7.9.1	CAMAC cable IDOM (1)	SLAC	M&S	1	0 wks	\$0.00	\$200.00	\$0.00	\$200.00	\$12.00	\$31.80	\$243.8
		SLAC M&S Total		M&S	0	200	\$0.00	\$0.00	\$0.00	\$200.00	\$0.00	\$0.00	\$0.00
2152	1.2.2.7.9.1	Actuator/Attenuator Interface panel	SLAC	B&H	1	0.5 wks	\$0.00	\$0.00	\$876.80	\$876.80	\$175.36	\$157.82	\$1,209.9
		SLAC Controls: Technician		B&H	0	0.5 wks	\$0.00	\$0.00	\$0.00	\$876.80	\$0.00	\$0.00	\$0.00
2153	1.2.2.7.9.1	Multi-Cond. cable (4PR)	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219.0
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.00
2154	1.2.2.7.10	RF Controls			0	9.16 wks	\$0.00	\$58,800.00	\$25,806.46	\$84,606.46	\$8,689.29	\$38,083.34	\$131,379.09
2155	1.2.2.7.10.2	RF Sector 24 Controls	SLAC		0	4.58 wks	\$0.00	\$29,400.00	\$12,887.23	\$42,287.23	\$4,341.45	\$19,038.79	\$65,667.47
2156	1.2.2.7.10.2	RF Phase & Amplitude, BLM, Temp. Controls Hdw.	SLAC	ED&I	4	4 wks	\$0.00	\$0.00	\$11,788.80	\$11,788.80	\$2,357.76	\$7,073.28	\$21,219.8
		SLAC Controls: Engineer		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$11,788.80	\$0.00	\$0.00	\$0.00
2157	1.2.2.7.10.2	RF Phase & Amplitude, BLM, Temp. Controls Hdw.	SLAC	M&S	4	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$180.00	\$1,590.00	\$4,770.0
		SLAC M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0.00
2158	1.2.2.7.10.2	CAMAC Module, GADC (1)	SLAC	B&H	4	0.02 wks	\$0.00	\$0.00	\$35.07	\$35.07	\$7.01	\$21.04	\$63.1
		SLAC Controls: Technician		B&H	0	0.02 wks	\$0.00	\$0.00	\$0.00	\$35.07	\$0.00	\$0.00	\$0.0
2159	1.2.2.7.10.2	CAMAC Module, GADC (1)	SLAC	M&S	4	0 wks	\$0.00	\$8,000.00	\$0.00	\$8,000.00	\$480.00	\$4,240.00	\$12,720.0
		SLAC M&S Total		M&S	0	8,000	\$0.00	\$0.00	\$0.00	\$8,000.00	\$0.00	\$0.00	\$0.00
2160	1.2.2.7.10.2	CAMAC Module, DAC (1)	SLAC	B&H	4	0.02 wks	\$0.00	\$0.00	\$35.07	\$35.07	\$7.01	\$21.04	\$63.1
		SLAC Controls: Technician		B&H	0	0.02 wks	\$0.00	\$0.00	\$0.00	\$35.07	\$0.00	\$0.00	\$0.00
2161	1.2.2.7.10.2	CAMAC Module, DAC (1)	SLAC	M&S	4	0 wks	\$0.00	\$4,000.00	\$0.00	\$4,000.00	\$240.00	\$2,120.00	\$6,360.0
		SLAC M&S Total		M&S	0	4,000	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$0.00
2162	1.2.2.7.10.2	CAMAC Module, SAM (1)	SLAC	B&H	4	0.02 wks	\$0.00	\$0.00	\$35.07	\$35.07	\$7.01	\$21.04	\$63.1
		SLAC Controls: Technician		B&H	0	0.02 wks	\$0.00	\$0.00	\$0.00	\$35.07	\$0.00	\$0.00	\$0.0
2163	1.2.2.7.10.2	CAMAC Module, SAM (1)	SLAC	M&S	4	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$180.00	\$1,590.00	\$4,770.0
		SLAC M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0.0
164	1.2.2.7.10.2	CAMAC Module PAU (2)	SLAC	B&H	1	0.06 wks	\$0.00	\$0.00	\$105.22	\$105.22	\$21.04	\$18.94	\$145.2
		SLAC Controls: Technician		B&H	0	0.06 wks	\$0.00	\$0.00	\$0.00	\$105.22	\$0.00	\$0.00	\$0.0
2165	1.2.2.7.10.2	CAMAC Module PAU (2)	SLAC	M&S	1	0 wks	\$0.00	\$5,000.00	\$0.00	\$5,000.00	\$300.00	\$795.00	\$6,095.0
		SLAC M&S Total		M&S	0	5,000	\$0.00	\$0.00	\$0.00	\$5,000.00	\$0.00	\$0.00	\$0.00
2166	1.2.2.7.10.2	CAMAC cable GADC (1)	SLAC	B&H	1	0.02 wks	\$0.00	\$0.00	\$40.00	\$40.00	\$8.00	\$7.20	\$55.2

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ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		SLACL PCD:Inst-Cabling-Elec Fab		B&H	0	0.02 wks	\$0.00	\$0.00	\$0.00	\$40.00	\$0.00	\$0.00	\$0.0
2167	1.2.2.7.10.2	CAMAC cable GADC (1)	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219.0
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.0
2168	1.2.2.7.10.2	CAMAC cable DAC (1)	SLAC	B&H	1	0.02 wks	\$0.00	\$0.00	\$40.00	\$40.00	\$8.00	\$7.20	\$55.2
		SLACL PCD:Inst-Cabling-Elec Fab		B&H	0	0.02 wks	\$0.00	\$0.00	\$0.00	\$40.00	\$0.00	\$0.00	\$0.0
2169	1.2.2.7.10.2	CAMAC cable DAC (1)	SLAC	M&S	1	0 wks	\$0.00	\$400.00	\$0.00	\$400.00	\$24.00	\$63.60	\$487.6
		SLAC M&S Total		M&S	0	400	\$0.00	\$0.00	\$0.00	\$400.00	\$0.00	\$0.00	\$0.0
2170	1.2.2.7.10.2	CAMAC cable SAM (1)	SLAC	B&H	1	0.02 wks	\$0.00	\$0.00	\$40.00	\$40.00	\$8.00	\$7.20	\$55.2
		SLACL PCD:Inst-Cabling-Elec Fab		B&H	0	0.02 wks	\$0.00	\$0.00	\$0.00	\$40.00	\$0.00	\$0.00	\$0.0
171	1.2.2.7.10.2	CAMAC cable SAM (1)	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219.0
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.0
172	1.2.2.7.10.2	CblpInt Phase & Amp., BLM, TC's.(Gun &	SLAC	M&S	4	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$530.00	\$1,590.0
		L0+L1+X-Band) SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.0
173	1.2.2.7.10.2	Microprocessor Upgrade	SLAC	ED&I	1	0.4 wks	\$0.00	\$0.00	\$768.00	\$768.00	\$153.60	\$138.24	\$1,059.
		SLAC PCD:Coordinator Associate		ED&I	0	0.4 wks	\$0.00	\$0.00	\$0.00	\$768.00	\$0.00	\$0.00	\$0.0
174	1.2.2.7.10.2		SLAC	M&S	1	0.4 WAS	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$180.00	\$477.00	\$3,657.
174	1.2.2.7.10.2		SLAC		'								
		SLAC M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0.0
175	1.2.2.7.10.3	RF Sector 30 Controls	SLAC		0	4.58 wks	\$0.00	\$29,400.00	\$12,919.23	\$42,319.23	\$4,347.85	\$19,044.55	\$65,711.6
2176	1.2.2.7.10.3		SLAC	ED&I	4	4 wks	\$0.00	\$0.00	\$11,788.80	\$11,788.80	\$2,357.76	\$7,073.28	\$21,219.
		SLAC Controls: Engineer		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$11,788.80	\$0.00	\$0.00	\$0.
177	1.2.2.7.10.3	RF Phase & Amplitude, BLM, Temp. Controls Hdw.	SLAC	M&S	4	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$180.00	\$1,590.00	\$4,770.
		SLAC M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0.
2178	1.2.2.7.10.3	CAMAC Module, GADC (1)	SLAC	B&H	4	0.02 wks	\$0.00	\$0.00	\$35.07	\$35.07	\$7.01	\$21.04	\$63.
		SLAC Controls: Technician		B&H	0	0.02 wks	\$0.00	\$0.00	\$0.00	\$35.07	\$0.00	\$0.00	\$0.0
2179	1.2.2.7.10.3	CAMAC Module, GADC (1)	SLAC	M&S	4	0 wks	\$0.00	\$8,000.00	\$0.00	\$8,000.00	\$480.00	\$4,240.00	\$12,720.
		SLAC M&S Total		M&S	0	8,000	\$0.00	\$0.00	\$0.00	\$8,000.00	\$0.00	\$0.00	\$0.
180	1.2.2.7.10.3	CAMAC Module, DAC (1)	SLAC	B&H	4	0.02 wks	\$0.00	\$0.00	\$35.07	\$35.07	\$7.01	\$21.04	\$63.
		SLAC Controls: Technician		B&H	0	0.02 wks	\$0.00	\$0.00	\$0.00	\$35.07	\$0.00	\$0.00	\$0.
181	1.2.2.7.10.3	CAMAC Module, DAC (1)	SLAC	M&S	4	0 wks	\$0.00	\$4,000.00	\$0.00	\$4,000.00	\$240.00	\$2,120.00	\$6,360.
		SLAC M&S Total		M&S	0	4,000	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$0.
182	1.2.2.7.10.3	CAMAC Module, SAM (1)	SLAC	B&H	4	0.02 wks	\$0.00	\$0.00	\$35.07	\$35.07	\$7.01	\$21.04	\$63.
		SLAC Controls: Technician		B&H	0	0.02 wks	\$0.00	\$0.00	\$0.00	\$35.07	\$0.00	\$0.00	\$0.
2183	1.2.2.7.10.3		SLAC	M&S	4	0.02 w/ks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$180.00	\$1,590.00	\$4,770.
-100	1.2.2.7.10.3	SLAC M&S Total	JEAU	M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0.
2184	1.2.2.7.10.3	CAMAC Module PAU (2)	SLAC	B&H	1	0.06 wks	\$0.00	\$0.00	\$105.22	\$105.22	\$21.04	\$18.94	\$145.2

						LCLS_CD1_TEC	•						
ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		SLAC Controls: Technician		B&H	0	0.06 wks	\$0.00	\$0.00	\$0.00	\$105.22	\$0.00	\$0.00	\$0.00
2185	1.2.2.7.10.3	CAMAC Module PAU (2)	SLAC	M&S	1	0 wks	\$0.00	\$5,000.00	\$0.00	\$5,000.00	\$300.00	\$795.00	\$6,095.00
		SLAC M&S Total		M&S	0	5,000	\$0.00	\$0.00	\$0.00	\$5,000.00	\$0.00	\$0.00	\$0.00
2186	1.2.2.7.10.3	CAMAC cable GADC (1)	SLAC	B&H	1	0.02 wks	\$0.00	\$0.00	\$40.00	\$40.00	\$8.00	\$7.20	\$55.2
		SLACL PCD:Inst-Cabling-Elec Fab		B&H	0	0.02 wks	\$0.00	\$0.00	\$0.00	\$40.00	\$0.00	\$0.00	\$0.00
2187	1.2.2.7.10.3	CAMAC cable GADC (1)	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219.0
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.0
2188	1.2.2.7.10.3	CAMAC cable DAC (1)	SLAC	В&Н	1	0.02 wks	\$0.00	\$0.00	\$40.00	\$40.00	\$8.00	\$7.20	\$55.2
		SLACL PCD:Inst-Cabling-Elec Fab		B&H	0	0.02 wks	\$0.00	\$0.00	\$0.00	\$40.00	\$0.00	\$0.00	\$0.0
2189	1.2.2.7.10.3	CAMAC cable DAC (1)	SLAC	M&S	1	0 wks	\$0.00	\$400.00	\$0.00	\$400.00	\$24.00	\$63.60	\$487.6
		SLAC M&S Total		M&S	0	400	\$0.00	\$0.00	\$0.00	\$400.00	\$0.00	\$0.00	\$0.00
2190	1.2.2.7.10.3	CAMAC cable SAM (1)	SLAC	B&H	1	0.02 wks	\$0.00	\$0.00	\$40.00	\$40.00	\$8.00	\$7.20	\$55.20
		SLACL PCD:Inst-Cabling-Elec Fab		В&Н	0	0.02 wks	\$0.00	\$0.00	\$0.00	\$40.00	\$0.00	\$0.00	\$0.0
2191	1.2.2.7.10.3	CAMAC cable SAM (1)	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219.0
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.00
2192	1.2.2.7.10.3		SLAC	M&S	4	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$530.00	\$1,590.0
		L0+L1+X-Band) SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.0
2193	1.2.2.7.10.3	Microprocessor Upgrade	SLAC	ED&I	1	0.4 wks	\$0.00	\$0.00	\$800.00	\$800.00	\$160.00	\$144.00	\$1,104.0
		SLAC Controls: Coordinator Assoc.		ED&I	0	0.4 wks	\$0.00	\$0.00	\$0.00	\$800.00	\$0.00	\$0.00	\$0.00
2194	1.2.2.7.10.3	Microprocessor Upgrade	SLAC	M&S	1	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$180.00	\$477.00	\$3,657.0
		SLAC M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0.0
2195	1.2.2.8	PPS			0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
2196	1.2.2.8.1	Accelerator PPS	SLAC		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
2197	1.2.2.9	RF			0	412.2 wks	\$0.00	\$765,000.00	\$1,158,804.80	\$1,923,804.80	\$277,660.96	\$658,735.40	\$2,860,201.16
2198	1.2.2.8.1	Accelerator PPS	SLAC		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
2199	1.2.2.9.1	L1 Accelerator Structures			0	412.2 wks	\$0.00	\$765,000.00	\$1,158,804.80	\$1,923,804.80	\$277,660.96	\$658,735.40	\$2,860,201.16
2200	1.2.2.9.1.1	Structure Chopping & Refurbish	SLAC	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$530.00	\$2,650.00
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.00
2201	1.2.2.9.1.1		SLAC	B&H	2	6 wks	\$0.00	\$0.00	\$19,200.00	\$19,200.00	\$3,840.00	\$5,760.00	\$28,800.0
			02.10	B&H	0		\$0.00	\$0.00	\$0.00	\$19,200.00	\$0.00	\$0.00	\$0.0
		SLAC Mech. Fab: Machine Shop				6 wks						.	
2202	1.2.2.9.1.2	-	SLAC	B&H	2	2 wks	\$0.00	\$0.00	\$3,548.80	\$3,548.80	\$709.76	\$1,064.64	\$5,323.2
		SLAC Klystron: Technician		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$3,548.80	\$0.00	\$0.00	\$0.0
2203	1.2.2.9.1.3		SLAC	ED&I	2	2 wks	\$0.00	\$0.00	\$6,720.00	\$6,720.00	\$1,344.00	\$2,016.00	\$10,080.0
		SLAC AD: Mech/Vacuum Engineer		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$6,720.00	\$0.00	\$0.00	\$0.00
2204	1.2.2.9.1.4	High Power Waveguide	SLAC	B&H	2	6 wks	\$0.00	\$0.00	\$19,200.00	\$19,200.00	\$3,840.00	\$5,760.00	\$28,800.00

				LCLS_CD1_TEC							
CWBS Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
SLAC Mech. Fab: Machine Shop		B&H	0	6 wks	\$0.00	\$0.00	\$0.00	\$19,200.00	\$0.00	\$0.00	\$0.00
1.2.2.9.1.5 Couplers	SLAC	M&S	2	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$180.00	\$795.00	\$3,975.00
SLAC M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0.00
1.2.2.9.1.5 Couplers	SLAC	B&H	2	3 wks	\$0.00	\$0.00	\$9,600.00	\$9,600.00	\$1,920.00	\$2,880.00	\$14,400.00
SLAC Mech. Fab: Machine Shop		B&H	0	3 wks	\$0.00	\$0.00	\$0.00	\$9,600.00	\$0.00	\$0.00	\$0.00
1.2.2.9.1.6 Loads	SLAC	B&H	2	1 wk	\$0.00	\$0.00	\$1,998.80	\$1,998.80	\$399.76	\$599.64	\$2,998.20
SLAC Mech. Fab: Assembly Tech		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$1,998.80	\$0.00	\$0.00	\$0.00
1.2.2.9.3 Accelerator Structures - Transverse			0	15 wks	\$0.00	\$9,000.00	\$44,492.00	\$53,492.00	\$9,438.40	\$11,892.60	\$74,823.00
1.2.2.9.3.1 Structure Refurbish	SLAC	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$265.00	\$1,325.00
SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.00
1.2.2.9.3.1 Structure Refurbish	SLAC	B&H	0	4 wks	\$0.00	\$0.00	\$12,800.00	\$12,800.00	\$2,560.00	\$0.00	\$15,360.00
SLAC Mech. Fab: Machine Shop		B&H	0	4 wks	\$0.00	\$0.00	\$0.00	\$12,800.00	\$0.00	\$0.00	\$0.00
1.2.2.9.3.2 Structure Testing	SLAC	B&H	2	1 wk	\$0.00	\$0.00	\$1,774.40	\$1,774.40	\$354.88	\$532.32	\$2,661.60
SLAC Klystron: Technician		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$1,774.40	\$0.00	\$0.00	\$0.00
1.2.2.9.3.3 Proc., Man. & Assembly Supervision	SLAC	ED&I	2	2 wks	\$0.00	\$0.00	\$6,720.00	\$6,720.00	\$1,344.00	\$2,016.00	\$10,080.00
SLAC AD: Mech/Vacuum Engineer		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$6,720.00	\$0.00	\$0.00	\$0.00
1.2.2.9.3.4 High Power Waveguide	SLAC	B&H	2	6 wks	\$0.00	\$0.00	\$19,200.00	\$19,200.00	\$3,840.00	\$5,760.00	\$28,800.00
SLAC Mech. Fab: Machine Shop		B&H	0	6 wks	\$0.00	\$0.00	\$0.00	\$19,200.00	\$0.00	\$0.00	\$0.00
1.2.2.9.3.4 High Power Waveguide	SLAC	M&S	2	0 wks	\$0.00	\$8,000.00	\$0.00	\$8,000.00	\$480.00	\$2,120.00	\$10,600.00
SLAC M&S Total	CENO	M&S	0		\$0.00	\$0.00	\$0.00	\$8,000.00	\$0.00	\$0.00	
				8,000						.	\$0.00
1.2.2.9.3.5 Couplers	SLAC	B&H	2	1 wk	\$0.00	\$0.00	\$1,998.80	\$1,998.80	\$399.76	\$599.64	\$2,998.2
SLAC Mech. Fab: Assembly Tech		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$1,998.80	\$0.00	\$0.00	\$0.00
1.2.2.9.3.6 Loads	SLAC	B&H	2	1 wk	\$0.00	\$0.00	\$1,998.80	\$1,998.80	\$399.76	\$599.64	\$2,998.20
SLAC Mech. Fab: Assembly Tech		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$1,998.80	\$0.00	\$0.00	\$0.00
1.2.2.9.2 Accelerator Structures - X-band			0	156.2 wks	\$0.00	\$426,000.00	\$456,226.80	\$882,226.80	\$116,805.36	\$349,661.26	\$1,348,693.42
1.2.2.9.2.1 X-Band Klystrons	SLAC		0	39 wks	\$0.00	\$179,000.00	\$142,282.40	\$321,282.40	\$39,196.48	\$126,167.61	\$486,646.49
1.2.2.9.2.1 X-Band Klystron	SLAC	M&S	3	0 wks	\$0.00	\$175,000.00	\$0.00	\$175,000.00	\$10,500.00	\$64,925.00	\$250,425.00
SLAC M&S Total		M&S	0	175,000	\$0.00	\$0.00	\$0.00	\$175,000.00	\$0.00	\$0.00	\$0.00
1.2.2.9.2.1 X-Band Klystron	SLAC	B&H	3	20 wks	\$0.00	\$0.00	\$100,000.00	\$100,000.00	\$20,000.00	\$42,000.00	\$162,000.00
SLAC Mech. Fab: Plating & Cleaning		B&H	0	20 wks	\$0.00	\$0.00	\$0.00	\$100,000.00	\$0.00	\$0.00	\$0.00
1.2.2.9.2.1 Coordinate	SLAC	ED&I	3	5 wks	\$0.00	\$0.00	\$10,728.00	\$10,728.00	\$2,145.60	\$4,505.76	\$17,379.36
SLAC Klystron: Coordinator Assoc.		ED&I	0	5 wks	\$0.00	\$0.00	\$0.00	\$10,728.00	\$0.00	\$0.00	\$0.00
1.2.2.9.2.1 Assemble	SLAC	ED&I	3	4 wks	\$0.00	\$0.00	\$11,572.80	\$11,572.80	\$2,314.56	\$4,860.58	\$18,747.9
SLAC Klystron: Engineer		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$11,572.80	\$0.00	\$0.00	\$0.00
1.2.2.9.2.1 Assemble	SLAC	B&H	3	5 wks	\$0.00	\$0.00	\$8,872.00	\$8,872.00	\$1,774.40	\$3,726.24	\$14,372.64
1.2.2.9.2.1											

1.01	0	CD4	TEC	
LUL	-0	CUI	TEC	

ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		SLAC Klystron: Technician		B&H	0	5 wks	\$0.00	\$0.00	\$0.00	\$8,872.00	\$0.00	\$0.00	\$0.
224	1.2.2.9.2.1	Test	SLAC	ED&I	3	2 wks	\$0.00	\$0.00	\$5,786.40	\$5,786.40	\$1,157.28	\$2,430.29	\$9,373.
		SLAC Klystron: Engineer		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$5,786.40	\$0.00	\$0.00	\$0.
225	1.2.2.9.2.1	Test	SLAC	B&H	3	2 wks	\$0.00	\$0.00	\$3,548.80	\$3,548.80	\$709.76	\$1,490.50	\$5,749
		SLAC Klystron: Technician		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$3,548.80	\$0.00	\$0.00	\$0
226	1.2.2.9.2.1	Mounting Support	SLAC	M&S	3	0 wks	\$0.00	\$4,000.00	\$0.00	\$4,000.00	\$240.00	\$1,484.00	\$5,724
		SLAC M&S Total		M&S	0	4,000	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$0
227	1.2.2.9.2.1	Mounting Support	SLAC	B&H	3	1 wk	\$0.00	\$0.00	\$1,774.40	\$1,774.40	\$354.88	\$745.25	\$2,874
		SLAC Klystron: Technician		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$1,774.40	\$0.00	\$0.00	\$0
228	1.2.2.9.2.2	Modulator	SLAC		0	18 wks	\$0.00	\$78,000.00	\$37,682.80	\$115,682.80	\$12,216.56	\$44,764.78	\$172,664
229	1.2.2.9.2.2	Tank	SLAC	B&H	3	1 wk		\$0.00	\$1,774.40	\$1,774.40	\$354.88	\$745.25	\$2,874
		SLAC Klystron: Technician		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$1,774.40	\$0.00	\$0.00	\$0
30	1.2.2.9.2.2		SLAC	M&S	3	0 wks	\$0.00	\$15,000.00	\$0.00	\$15,000.00	\$900.00	\$5,565.00	\$21,465
.50	1.2.2.3.2.2	SLAC M&S Total	SLAC	M&S		15,000	\$0.00	\$0.00	\$0.00	\$15,000.00	\$0.00	\$0.00	\$21,400
					0		, , , , ,		·			, , , , ,	
31	1.2.2.9.2.2		SLAC	M&S	3	0 wks	\$0.00	\$18,000.00	\$0.00	\$18,000.00	\$1,080.00		\$25,75
		SLAC M&S Total		M&S	0	18,000	\$0.00	\$0.00	\$0.00	\$18,000.00	\$0.00	\$0.00	\$
32	1.2.2.9.2.2	Pulse Cable	SLAC	M&S	3	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$180.00	\$1,113.00	\$4,29
		SLAC M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$6
233	1.2.2.9.2.2	Cap Divider	SLAC	M&S	3	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$742.00	\$2,86
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$
34	1.2.2.9.2.2	Heater Isolation	SLAC	M&S	3	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$742.00	\$2,86
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0
235	1.2.2.9.2.2	Heater Supply	SLAC	M&S	3	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$
		SLAC M&S Total		M&S	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
36	1.2.2.9.2.2	Toroid + Misc	SLAC	M&S	3	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$742.00	\$2,86
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$(
37	1.2.2.9.2.2		SLAC	M&S	3	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$180.00	\$1,113.00	\$4,29
31	1.2.2.9.2.2	SLAC M&S Total	SLAC	M&S			\$0.00						
					0	3,000	, , , , ,	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$
38	1.2.2.9.2.2		SLAC	M&S	3	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$742.00	\$2,86
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$
39	1.2.2.9.2.2	Cable Install	SLAC	ED&I	3	2 wks	\$0.00	\$0.00	\$4,291.20	\$4,291.20	\$858.24	\$1,802.30	\$6,95
		SLAC Klystron: Coordinator Assoc.		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,291.20	\$0.00	\$0.00	\$
40	1.2.2.9.2.2	Cable Install	SLAC	B&H	3	2 wks	\$0.00	\$0.00	\$4,000.00	\$4,000.00	\$800.00	\$1,680.00	\$6,48
		SLACL PCD:Inst-Cabling-Elec Fab		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$0
241	1.2.2.9.2.2	Assemble	SLAC	ED&I	3	1 wk	\$0.00	\$0.00	\$2.893.20	\$2.893.20	\$578.64	\$1,215.14	\$4,686

101	0	CD4	TEC
LUL	٠.	CUI	TEC

						LCLS_CD1_TEC	;						
ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		SLAC Klystron: Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,893.20	\$0.00	\$0.00	\$0.00
2242	1.2.2.9.2.2	Assemble	SLAC	B&H	3	3 wks	\$0.00	\$0.00	\$5,323.20	\$5,323.20	\$1,064.64	\$2,235.74	\$8,623.58
		SLAC Klystron: Technician		B&H	0	3 wks	\$0.00	\$0.00	\$0.00	\$5,323.20	\$0.00	\$0.00	\$0.00
2243	1.2.2.9.2.2	Test	SLAC	ED&I	3	2 wks	\$0.00	\$0.00	\$5,786.40	\$5,786.40	\$1,157.28	\$2,430.29	\$9,373.97
		SLAC Klystron: Engineer		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$5,786.40	\$0.00	\$0.00	\$0.00
2244	1.2.2.9.2.2	Test	SLAC	B&H	3	3 wks	\$0.00	\$0.00	\$5,323.20	\$5,323.20	\$1,064.64	\$2,235.74	\$8,623.58
		SLAC Klystron: Technician		B&H	0	3 wks	\$0.00	\$0.00	\$0.00	\$5,323.20	\$0.00	\$0.00	\$0.00
2245	1.2.2.9.2.2	Magnet Power Supplies	SLAC	M&S	3	0 wks	\$0.00	\$25,000.00	\$0.00	\$25,000.00	\$1,500.00	\$9,275.00	\$35,775.00
		SLAC M&S Total		M&S	0	25,000	\$0.00	\$0.00	\$0.00	\$25,000.00	\$0.00	\$0.00	\$0.00
2246	1.2.2.9.2.2	Power Supply Cabling	SLAC	ED&I	3	2 wks	\$0.00	\$0.00	\$4,291.20	\$4,291.20	\$858.24	\$1,802.30	\$6,951.74
		SLAC Klystron: Coordinator Assoc.		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,291.20	\$0.00	\$0.00	\$0.00
2247	1.2.2.9.2.2	Power Supply Cabling	SLAC	M&S	3	0 wks	\$0.00	\$5,000.00	\$0.00	\$5,000.00	\$300.00	\$1,855.00	\$7,155.00
		SLAC M&S Total		M&S	0	5,000	\$0.00	\$0.00	\$0.00	\$5,000.00	\$0.00	\$0.00	\$0.00
2248	1.2.2.9.2.2	Power Supply Cabling	SLAC	B&H	3	2 wks	\$0.00	\$0.00	\$4,000.00	\$4,000.00	\$800.00	\$1,680.00	\$6,480.00
		SLACL PCD:Inst-Cabling-Elec Fab		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$0.00
2249	1.2.2.9.2.2	Cathode Ion Pump	SLAC	M&S	3	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$371.00	\$1,431.00
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.00
2250	1.2.2.9.2.3	X-Band LLRF	SLAC		0	12 wks	\$0.00	\$65,000.00	\$24,724.00	\$89,724.00	\$8,844.80	\$34,499.08	\$133,067.88
2251	1.2.2.9.2.3	TWT Driver	SLAC	M&S	3	0 wks	\$0.00	\$25,000.00	\$0.00	\$25,000.00	\$1,500.00	\$9,275.00	\$35,775.00
		SLAC M&S Total		M&S	0	25,000	\$0.00	\$0.00	\$0.00	\$25,000.00	\$0.00	\$0.00	\$0.00
2252	1.2.2.9.2.3	4X multiplier	SLAC	M&S	3	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$742.00	\$2,862.00
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.00
2253	1.2.2.9.2.3	Phase&Amp Det X-Band	SLAC	M&S	3	0 wks	\$0.00	\$25,000.00	\$0.00	\$25,000.00	\$1,500.00	\$9,275.00	\$35,775.00
		SLAC M&S Total		M&S	0	25,000	\$0.00	\$0.00	\$0.00	\$25,000.00	\$0.00	\$0.00	\$0.00
2254	1.2.2.9.2.3	RF Cables	SLAC	ED&I	3	2 wks	\$0.00	\$0.00	\$4,291.20	\$4,291.20	\$858.24	\$1,802.30	\$6,951.74
		SLAC Klystron: Coordinator Assoc.		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,291.20	\$0.00	\$0.00	\$0.00
2255	1.2.2.9.2.3	RF Cables	SLAC	B&H	3	2 wks	\$0.00	\$0.00	\$4,000.00	\$4,000.00	\$800.00	\$1,680.00	\$6,480.00
		SLACL PCD:Inst-Cabling-Elec Fab		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$0.00
2256	1.2.2.9.2.3	RF Cables	SLAC	M&S	3	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$742.00	\$2,862.00
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.00
2257	1.2.2.9.2.3	Stripline Couplers	SLAC	M&S	3	0 wks	\$0.00	\$4,000.00	\$0.00	\$4,000.00	\$240.00	\$1,484.00	\$5,724.00
		SLAC M&S Total		M&S	0	4,000	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$0.00
2258	1.2.2.9.2.3	Assemble	SLAC	B&H	3	3 wks	\$0.00	\$0.00	\$5,323.20	\$5,323.20	\$1,064.64	\$2,235.74	\$8,623.58
		SLAC Klystron: Technician		B&H	0	3 wks	\$0.00	\$0.00	\$0.00	\$5,323.20	\$0.00	\$0.00	\$0.00
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2259	1.2.2.9.2.3	Assemble	SLAC	M&S	3	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$742.00	\$2,862.00

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ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.0
260	1.2.2.9.2.3		SLAC	ED&I	3	2 wks	\$0.00	\$0.00	\$5,786.40	\$5,786.40	\$1,157.28	\$2,430.29	\$9,373.9
		SLAC Klystron: Engineer		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$5,786.40	\$0.00	\$0.00	\$0.0
261	1.2.2.9.2.3	Test	SLAC	B&H	3	3 wks	\$0.00	\$0.00	\$5,323.20	\$5,323.20	\$1,064.64	\$2,235.74	\$8,623.
		SLAC Klystron: Technician		B&H	0	3 wks	\$0.00	\$0.00	\$0.00	\$5,323.20	\$0.00	\$0.00	\$0.
262	1.2.2.9.2.3	Drive Monitoring	SLAC	M&S	3	0 wks	\$0.00	\$5,000.00	\$0.00	\$5,000.00	\$300.00	\$1,855.00	\$7,155.
		SLAC M&S Total		M&S	0	5,000	\$0.00	\$0.00	\$0.00	\$5,000.00	\$0.00	\$0.00	\$0.
263	1.2.2.9.2.4	Waveguide System	SLAC		0	15.5 wks	\$0.00	\$39,000.00	\$41,918.00	\$80,918.00	\$10,723.60	\$32,074.56	\$123,716.
264	1.2.2.9.2.4	Broadwall Coupler (3ea)	SLAC	B&H	3	2 wks	\$0.00	\$0.00	\$6,400.00	\$6,400.00	\$1,280.00	\$2,688.00	\$10,368
		SLAC Mech. Fab: Machine Shop		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$6,400.00	\$0.00	\$0.00	\$0.
265	1.2.2.9.2.4	Broadwall Coupler (3ea)	SLAC	M&S	3	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$180.00	\$1,113.00	\$4,293
		SLAC M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0.
266	1.2.2.9.2.4	Mode Conv (3ea)	SLAC	B&H	3	1 wk	\$0.00	\$0.00	\$3,200.00	\$3,200.00	\$640.00	\$1,344.00	\$5,184
		SLAC Mech. Fab: Machine Shop		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$3,200.00	\$0.00	\$0.00	\$0
267	1.2.2.9.2.4	Mode Conv (3ea)	SLAC	M&S	3	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$742.00	\$2,862
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0
68	1.2.2.9.2.4	Circular Waveguide (45ft)	SLAC	B&H	3	2.5 wks	\$0.00	\$0.00	\$8,000.00	\$8,000.00	\$1,600.00	\$3,360.00	\$12,960
		SLAC Mech. Fab: Machine Shop		B&H	0	2.5 wks	\$0.00	\$0.00	\$0.00	\$8,000.00	\$0.00	\$0.00	\$0
269	1.2.2.9.2.4	·	SLAC	M&S	3	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$180.00	\$1,113.00	\$4,293
		SLAC M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0
70	1.2.2.9.2.4		SLAC	B&H	3	1 wk		\$0.00	\$3,200.00	\$3,200.00	\$640.00	\$1,344.00	\$5,184
	1.2.2.0.2.4	SLAC Mech. Fab: Machine Shop	OLAG	B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$3,200.00	\$0.00	\$0.00	\$0
271	1.2.2.9.2.4	·	SLAC	M&S		0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$371.00	\$1,431
271	1.2.2.9.2.4		SLAC		3		\$0.00					\$0.00	
		SLAC M&S Total		M&S	0	1,000	, , , , ,	\$0.00	\$0.00	\$1,000.00	\$0.00	, , , , ,	\$0
272	1.2.2.9.2.4		SLAC	M&S	3	0 wks	\$0.00	\$12,000.00	\$0.00	\$12,000.00	\$720.00	\$4,452.00	\$17,172
		SLAC M&S Total		M&S	0	12,000	\$0.00	\$0.00	\$0.00	\$12,000.00	\$0.00	\$0.00	\$0
273	1.2.2.9.2.4	Ion Pump P.S. (4ea)	SLAC	M&S	3	0 wks	\$0.00	\$10,000.00	\$0.00	\$10,000.00	\$600.00	\$3,710.00	\$14,310
		SLAC M&S Total		M&S	0	10,000	\$0.00	\$0.00	\$0.00	\$10,000.00	\$0.00	\$0.00	\$0
74	1.2.2.9.2.4	Ion Gauge & Controller	SLAC	M&S	3	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$180.00	\$1,113.00	\$4,293
		SLAC M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0
75	1.2.2.9.2.4	W/G Supports (5ea)	SLAC	M&S	3	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$180.00	\$1,113.00	\$4,293
		SLAC M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0
76	1.2.2.9.2.4	Assemble	SLAC	ED&I	3	2 wks	\$0.00	\$0.00	\$5,786.40	\$5,786.40	\$1,157.28	\$2,430.29	\$9,373
		SLAC Klystron: Engineer		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$5,786.40	\$0.00	\$0.00	\$0
277	1.2.2.9.2.4	Assemble	SLAC	B&H	3	3 wks	\$0.00	\$0.00	\$5,996,40	\$5,996,40	\$1,199.28	\$2,518.49	\$9,714

						LCLS_CD1_TEC							
ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		SLAC Mech. Fab: Assembly Tech		B&H	0	3 wks	\$0.00	\$0.00	\$0.00	\$5,996.40	\$0.00	\$0.00	\$0.00
2278	1.2.2.9.2.4	Assemble	SLAC	M&S	3	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$742.00	\$2,862.00
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.00
2279	1.2.2.9.2.4	Test	SLAC	ED&I	3	2 wks	\$0.00	\$0.00	\$5,786.40	\$5,786.40	\$1,157.28	\$2,430.29	\$9,373.97
		SLAC Klystron: Engineer		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$5,786.40	\$0.00	\$0.00	\$0.00
2280	1.2.2.9.2.4	Test	SLAC	B&H	3	2 wks	\$0.00	\$0.00	\$3,548.80	\$3,548.80	\$709.76	\$1,490.50	\$5,749.06
		SLAC Klystron: Technician		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$3,548.80	\$0.00	\$0.00	\$0.00
2281	1.2.2.9.2.5	X-BAND STRUCTURE	SLAC		0	71.7 wks	\$0.00	\$65,000.00	\$209,619.60	\$274,619.60	\$45,823.92	\$112,155.23	\$432,598.75
2282	1.2.2.9.2.5	Structure Kly Labor	SLAC	B&H	3	44 wks	\$0.00	\$0.00	\$140,800.00	\$140,800.00	\$28,160.00	\$59,136.00	\$228,096.00
		SLAC Mech. Fab: Machine Shop		B&H	0	44 wks	\$0.00	\$0.00	\$0.00	\$140,800.00	\$0.00	\$0.00	\$0.00
2283	1.2.2.9.2.5	Structure Kly Labor	SLAC	M&S	3	0 wks	\$0.00	\$50,000.00	\$0.00	\$50,000.00	\$3,000.00	\$18,550.00	\$71,550.00
		SLAC M&S Total		M&S	0	50,000	\$0.00	\$0.00	\$0.00	\$50,000.00	\$0.00	\$0.00	\$0.00
2284	1.2.2.9.2.5	Structure Shop Labor	SLAC	B&H	3	6.7 wks	\$0.00	\$0.00	\$21,440.00	\$21,440.00	\$4,288.00	\$9,004.80	\$34,732.80
		SLAC Mech. Fab: Machine Shop		B&H	0	6.7 wks	\$0.00	\$0.00	\$0.00	\$21,440.00	\$0.00	\$0.00	\$0.00
2285	1.2.2.9.2.5	WR90 Tee	SLAC	B&H	3	2 wks	\$0.00	\$0.00	\$6,400.00	\$6,400.00	\$1,280.00	\$2,688.00	\$10,368.00
		SLAC Mech. Fab: Machine Shop		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$6,400.00	\$0.00	\$0.00	\$0.00
2286	1.2.2.9.2.5	WR90 Tee	SLAC	M&S	3	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$180.00	\$1,113.00	\$4,293.00
		SLAC M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0.00
2287	1.2.2.9.2.5	WR90 Loads	SLAC	B&H	3	1 wk	\$0.00	\$0.00	\$3,200.00	\$3,200.00	\$640.00	\$1,344.00	\$5,184.00
		SLAC Mech. Fab: Machine Shop		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$3,200.00	\$0.00	\$0.00	\$0.00
2288	1.2.2.9.2.5		SLAC	M&S	3	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$742.00	\$2,862.00
	1.2.2.0.2.0	SLAC M&S Total	02/10	M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.00
2289	1.2.2.9.2.5		SLAC	B&H	3	1 wk	, , , , ,	\$0.00	\$3,200.00	\$3,200.00	\$640.00	\$1,344.00	\$5,184.00
2209	1.2.2.9.2.5	SLAC Mech. Fab: Machine Shop	SLAC	B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$3,200.00	\$0.00	\$0.00	\$0.00
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2290	1.2.2.9.2.5		SLAC	M&S	3	0 wks	\$0.00	\$4,000.00	\$0.00	\$4,000.00	\$240.00	\$1,484.00	\$5,724.00
		SLAC M&S Total		M&S	0	4,000	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$0.00
2291	1.2.2.9.2.5		SLAC	B&H	3	3 wks	\$0.00	\$0.00	\$5,996.40	\$5,996.40	\$1,199.28	\$2,518.49	\$9,714.17
		SLAC Mech. Fab: Assembly Tech		B&H	0	3 wks	\$0.00	\$0.00	\$0.00	\$5,996.40	\$0.00	\$0.00	\$0.00
2292	1.2.2.9.2.5	Assemble	SLAC	M&S	3	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$180.00	\$1,113.00	\$4,293.00
		SLAC M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0.00
2293	1.2.2.9.2.5	Transport	SLAC	B&H	3	1 wk	\$0.00	\$0.00	\$1,600.00	\$1,600.00	\$320.00	\$672.00	\$2,592.00
		SLAC Site Engineering: Plant Maint.		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$1,600.00	\$0.00	\$0.00	\$0.00
2294	1.2.2.9.2.5	Installation	SLAC	B&H	3	4 wks	\$0.00	\$0.00	\$7,995.20	\$7,995.20	\$1,599.04	\$3,357.98	\$12,952.22
		SLAC Mech. Fab: Assembly Tech		B&H	0	4 wks	\$0.00	\$0.00	\$0.00	\$7,995.20	\$0.00	\$0.00	\$0.00
2295	1.2.2.9.2.5	Installation	SLAC	M&S	3	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$180.00	\$1,113.00	\$4,293.00

						LCLS_CD1_TEC							
ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		SLAC M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0.00
2296	1.2.2.9.2.5	Cable Install	SLAC	ED&I	3	1 wk	\$0.00	\$0.00	\$2,145.60	\$2,145.60	\$429.12	\$901.15	\$3,475.87
		SLAC Klystron: Coordinator Assoc.		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,145.60	\$0.00	\$0.00	\$0.00
2297	1.2.2.9.2.5	Cable Install	SLAC	B&H	3	2 wks	\$0.00	\$0.00	\$4,000.00	\$4,000.00	\$800.00	\$1,680.00	\$6,480.00
		SLACL PCD:Inst-Cabling-Elec Fab		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$0.00
2298	1.2.2.9.2.5	Alignment	SLAC	B&H	3	2 wks	\$0.00	\$0.00	\$3,507.20	\$3,507.20	\$701.44	\$1,473.02	\$5,681.66
		SLAC PCD:Technician		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$3,507.20	\$0.00	\$0.00	\$0.00
2299	1.2.2.9.2.5	Process	SLAC	B&H	3	2 wks	\$0.00	\$0.00	\$3,548.80	\$3,548.80	\$709.76	\$1,490.50	\$5,749.06
		SLAC Klystron: Technician		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$3,548.80	\$0.00	\$0.00	\$0.00
2300	1.2.2.9.2.5	Test	SLAC	ED&I	3	2 wks	\$0.00	\$0.00	\$5,786.40	\$5,786.40	\$1,157.28	\$2,430.29	\$9,373.97
		SLAC Klystron: Engineer		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$5,786.40	\$0.00	\$0.00	\$0.00
2301	1.2.2.9.4	RF Distribution System			0	221 wks	\$0.00	\$325,000.00	\$597,818.40	\$922,818.40	\$139,063.68	\$277,776.26	\$1,339,658.34
2302	1.2.2.9.4.1	Modulator Referbish (7)	SLAC		0	7 wks	\$0.00	\$84,000.00	\$12,275.20	\$96,275.20	\$7,495.04	\$25,942.56	\$129,712.80
2303	1.2.2.9.4.1	Refurbish Modulator	SLAC	B&H	2	7 wks	\$0.00	\$0.00	\$12,275.20	\$12,275.20	\$2,455.04	\$3,682.56	\$18,412.80
		SLAC Controls: Technician		B&H	0	7 wks	\$0.00	\$0.00	\$0.00	\$12,275.20	\$0.00	\$0.00	\$0.00
2304	1.2.2.9.4.1		SLAC	M&S	2	0 wks	\$0.00	\$84,000.00	\$0.00	\$84,000.00	\$5,040.00	\$22,260.00	\$111,300.00
2304	1.2.2.9.4.1	Thyratron and Parts	SLAC	M&S			\$0.00						
		SLAC M&S Total		M&S	0	84,000	, , , , ,	\$0.00	\$0.00	\$84,000.00	\$0.00	\$0.00	\$0.00
2305	1.2.2.9.4.2		SLAC		0	12 wks	\$0.00	\$72,000.00	\$21,292.80	\$93,292.80	\$8,578.56	\$25,467.84	\$127,339.20
2306	1.2.2.9.4.2	Amplifier	SLAC	B&H	2	6 wks	\$0.00	\$0.00	\$10,646.40	\$10,646.40	\$2,129.28	\$3,193.92	\$15,969.60
		SLAC Klystron: Technician		B&H	0	6 wks	\$0.00	\$0.00	\$0.00	\$10,646.40	\$0.00	\$0.00	\$0.00
2307	1.2.2.9.4.2	Amplifier	SLAC	M&S	2	0 wks	\$0.00	\$60,000.00	\$0.00	\$60,000.00	\$3,600.00	\$15,900.00	\$79,500.00
		SLAC M&S Total		M&S	0	60,000	\$0.00	\$0.00	\$0.00	\$60,000.00	\$0.00	\$0.00	\$0.00
2308	1.2.2.9.4.2	Phase Control	SLAC	M&S	2	0 wks	\$0.00	\$6,000.00	\$0.00	\$6,000.00	\$360.00	\$1,590.00	\$7,950.00
		SLAC M&S Total		M&S	0	6,000	\$0.00	\$0.00	\$0.00	\$6,000.00	\$0.00	\$0.00	\$0.00
2309	1.2.2.9.4.2	Amplitude Control	SLAC	M&S	2	0 wks	\$0.00	\$6,000.00	\$0.00	\$6,000.00	\$360.00	\$1,590.00	\$7,950.00
		SLAC M&S Total		M&S	0	6,000	\$0.00	\$0.00	\$0.00	\$6,000.00	\$0.00	\$0.00	\$0.00
2310	1.2.2.9.4.2	Integration	SLAC	B&H	2	6 wks	\$0.00	\$0.00	\$10,646.40	\$10,646.40	\$2,129.28	\$3,193.92	\$15,969.60
		SLAC Klystron: Technician		B&H	0	6 wks	\$0.00	\$0.00	\$0.00	\$10,646.40	\$0.00	\$0.00	\$0.00
2311	1.2.2.9.4.3	IPA Modifications (6)	SLAC		0	4 wks	\$0.00	\$6,000.00	\$7,097.60	\$13,097.60	\$1,779.52	\$3,719.28	\$18,596.40
2312	1.2.2.9.4.3	Modify IPA Chassis	SLAC	B&H	2	2 wks	\$0.00	\$0.00	\$3,548.80	\$3,548.80	\$709.76	\$1,064.64	\$5,323.20
		SLAC Klystron: Technician		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$3,548.80	\$0.00	\$0.00	\$0.00
2313	1.2.2.9.4.3	Modify IPA Chassis	SLAC	M&S	2	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$180.00	\$795.00	\$3,975.00
		SLAC M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0.00
2314	1.2.2.9.4.3		SLAC	B&H	2	2 wks	\$0.00	\$0.00	\$3,548.80	\$3,548.80	\$709.76	\$1,064.64	\$5,323.20
		SLAC Klystron: Technician		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$3,548.80	\$0.00	\$0.00	\$0.00
		SLAC Mystron. reclinician		Dan		Z WKS	φυ.υυ	φυ.υυ	φυ.00	ψ3,3 4 0.60	φυ.00	φυ.υυ	φυ.υυ

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ID		Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
315	1.2.2.9.4.3	Recable Station	SLAC	M&S	2	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$180.00	\$795.00	\$3,975.0
		SLAC M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0.
316	1.2.2.9.4.4	Control Interface(6)	SLAC		0	3 wks	\$0.00	\$6,000.00	\$5,774.40	\$11,774.40	\$1,514.88	\$3,322.32	\$16,611.
317	1.2.2.9.4.4	Cables	SLAC	B&H	2	1 wk	\$0.00	\$0.00	\$1,774.40	\$1,774.40	\$354.88	\$532.32	\$2,661.
		SLAC Klystron: Technician		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$1,774.40	\$0.00	\$0.00	\$0.
318	1.2.2.9.4.4	Installation	SLAC	B&H	2	2 wks	\$0.00	\$0.00	\$4,000.00	\$4,000.00	\$800.00	\$1,200.00	\$6,000
		SLACL PCD:Inst-Cabling-Elec Fab		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$0.
319	1.2.2.9.4.4	Installation	SLAC	M&S	2	0 wks	\$0.00	\$6,000.00	\$0.00	\$6,000.00	\$360.00	\$1,590.00	\$7,950
		SLAC M&S Total		M&S	0	6,000	\$0.00	\$0.00	\$0.00	\$6,000.00	\$0.00	\$0.00	\$0
320	1.2.2.9.4.5	Beam Phase / Length Electronics	SLAC		0	3 wks	\$0.00	\$30,000.00	\$5,323.20	\$35,323.20	\$2,864.64	\$19,093.92	\$57,281
321	1.2.2.9.4.5	Fabrication	SLAC	M&S	4	0 wks	\$0.00	\$30,000.00	\$0.00	\$30,000.00	\$1,800.00	\$15,900.00	\$47,700
		SLAC M&S Total		M&S	0	30,000	\$0.00	\$0.00	\$0.00	\$30,000.00	\$0.00	\$0.00	\$0
322	1.2.2.9.4.5	Fabrication	SLAC	B&H	4	3 wks	\$0.00	\$0.00	\$5,323.20	\$5,323.20	\$1,064.64	\$3,193.92	\$9,581
		SLAC Klystron: Technician		B&H	0	3 wks	\$0.00	\$0.00	\$0.00	\$5,323.20	\$0.00	\$0.00	\$0
323	1.2.2.9.4.6	RF Phase Measurement	SLAC		0	3 wks	\$0.00	\$20,000.00	\$5,323.20	\$25,323.20	\$2,264.64	\$9,655.74	\$37,243
324	1.2.2.9.4.6	X-Band Chassis	SLAC	B&H	3	1 wk	\$0.00	\$0.00	\$1,774.40	\$1,774.40	\$354.88	\$745.25	\$2,874
		SLAC Klystron: Technician		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$1,774.40	\$0.00	\$0.00	\$0
325	1.2.2.9.4.6	X-Band Chassis	SLAC	M&S	3	0 wks	\$0.00	\$10,000.00	\$0.00	\$10,000.00	\$600.00	\$3,710.00	\$14,310
		SLAC M&S Total		M&S	0	10,000	\$0.00	\$0.00	\$0.00	\$10,000.00	\$0.00	\$0.00	\$0
326	1.2.2.9.4.6	X-Band PAD Mods	SLAC	B&H	3	2 wks	\$0.00	\$0.00	\$3,548.80	\$3,548.80	\$709.76	\$1,490.50	\$5,749
		SLAC Klystron: Technician		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$3,548.80	\$0.00	\$0.00	\$0
327	1.2.2.9.4.6	X-Band PAD Mods	SLAC	M&S	3	0 wks	\$0.00	\$10,000.00	\$0.00	\$10,000.00	\$600.00	\$3,710.00	\$14,310
		SLAC M&S Total		M&S	0	10,000	\$0.00	\$0.00	\$0.00	\$10,000.00	\$0.00	\$0.00	\$0
328	1.2.2.9.4.7	RF Distribution L2, L4	SLAC		0	24 wks	\$0.00	\$63,000.00	\$49,281.60	\$112,281.60	\$13,636.32	\$31,479.48	\$157,397
329	1.2.2.9.4.7	1 km 1/2 Superflex	SLAC	B&H	2	3 wks	\$0.00	\$0.00	\$6,000.00	\$6,000.00	\$1,200.00	\$1,800.00	\$9,000
		SLACL PCD:Inst-Cabling-Elec Fab		B&H	0	3 wks	\$0.00	\$0.00	\$0.00	\$6,000.00	\$0.00	\$0.00	\$0
330	1.2.2.9.4.7	1 km 1/2 Superflex	SLAC	M&S	2	0 wks	\$0.00	\$20,000.00	\$0.00	\$20,000.00	\$1,200.00	\$5,300.00	\$26,500
		SLAC M&S Total		M&S	0	20,000	\$0.00	\$0.00	\$0.00	\$20,000.00	\$0.00	\$0.00	\$0
331	1.2.2.9.4.7	Cable Guides	SLAC	B&H	2	2 wks	\$0.00	\$0.00	\$4,000.00	\$4,000.00	\$800.00	\$1,200.00	\$6,000
		SLACL PCD:Inst-Cabling-Elec Fab		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$0
332	1.2.2.9.4.7	Cable Guides	SLAC	M&S	2	0 wks	\$0.00	\$10,000.00	\$0.00	\$10,000.00	\$600.00	\$2,650.00	\$13,250
		SLAC M&S Total		M&S	0	10,000	\$0.00	\$0.00	\$0.00	\$10,000.00	\$0.00	\$0.00	\$0
333	1.2.2.9.4.7	RF Dist. PRL Coaxal Water	SLAC		2	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
334	1.2.2.9.4.7	Coaxil Water Lines Fab	SLAC	B&H	2	2 wks	\$0.00	\$0.00	\$6,400.00	\$6,400.00	\$1,280.00	\$1,920.00	\$9,600
		SLAC Mech. Fab: Machine Shop		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$6,400.00	\$0.00	\$0.00	\$0

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ID		Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
2335	1.2.2.9.4.7	Coaxil Water Lines Fab	SLAC	M&S	2	0 wks	\$0.00	\$8,000.00	\$0.00	\$8,000.00	\$480.00	\$2,120.00	\$10,600.0
		SLAC M&S Total		M&S	0	8,000	\$0.00	\$0.00	\$0.00	\$8,000.00	\$0.00	\$0.00	\$0.0
336	1.2.2.9.4.7	Cable Installation	SLAC	B&H	2	4 wks	\$0.00	\$0.00	\$7,097.60	\$7,097.60	\$1,419.52	\$2,129.28	\$10,646.4
		SLAC Klystron: Technician		B&H	0	4 wks	\$0.00	\$0.00	\$0.00	\$7,097.60	\$0.00	\$0.00	\$0.0
337	1.2.2.9.4.7	Cable Installation	SLAC	M&S	2	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$180.00	\$795.00	\$3,975.
-		SLAC M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0.0
338	1.2.2.9.4.7	Plumbing	SLAC	B&H	2	1 wk	\$0.00	\$0.00	\$2,680.00	\$2,680.00	\$536.00	\$804.00	\$4,020.
-		SLAC T&M Crafts - Union Pipefitter		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,680.00	\$0.00	\$0.00	\$0.
339	1.2.2.9.4.7	Plumbing	SLAC	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$265.00	\$1,325.
\dashv		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.
340	1.2.2.9.4.7	2 Watt Distribution Amp [10]	SLAC		2	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
341	1.2.2.9.4.7	Fab	SLAC	B&H	2	10 wks	\$0.00	\$0.00	\$17,744.00	\$17,744.00	\$3,548.80	\$5,323.20	\$26,616.
_		SLAC Klystron: Technician		B&H	0	10 wks	\$0.00	\$0.00	\$0.00	\$17,744.00	\$0.00	\$0.00	\$0.
342	1.2.2.9.4.7	Fab	SLAC	M&S	2	0 wks	\$0.00	\$20,000.00	\$0.00	\$20,000.00	\$1,200.00	\$5,300.00	\$26,500
_		SLAC M&S Total		M&S	0	20,000	\$0.00	\$0.00	\$0.00	\$20,000.00	\$0.00	\$0.00	\$0.
343	1.2.2.9.4.7	Installation	SLAC	B&H	2	2 wks	\$0.00	\$0.00	\$5,360.00	\$5,360.00	\$1,072.00	\$1,608.00	\$8,040
		SLAC T&M Crafts - Union Pipefitter		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$5,360.00	\$0.00	\$0.00	\$0.
344	1.2.2.9.4.7	Installation	SLAC	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$265.00	\$1,325.
	11212101111	SLAC M&S Total	02/10	M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.
345	1.2.2.9.4.8	Experimentors F.O.RF Ref.	SLAC	Mao	0	15 wks	\$0.00	\$44,000.00	\$29,430.40	\$73,430.40	\$8,526.08	\$20,489.12	\$102,445.
		·											
346	1.2.2.9.4.8	Exp. F.O. RF Ref. Electronics	SLAC	B&H	2	12 wks	\$0.00	\$0.00	\$21,043.20	\$21,043.20	\$4,208.64	\$6,312.96	\$31,564
		SLAC Controls: Technician		B&H	0	12 wks	\$0.00	\$0.00	\$0.00	\$21,043.20	\$0.00	\$0.00	\$0
347	1.2.2.9.4.8	Exp. F.O. RF Ref. Electronics	SLAC	M&S	2	0 wks	\$0.00	\$30,000.00	\$0.00	\$30,000.00	\$1,800.00	\$7,950.00	\$39,750
		SLAC M&S Total		M&S	0	30,000	\$0.00	\$0.00	\$0.00	\$30,000.00	\$0.00	\$0.00	\$0.
348	1.2.2.9.4.8	Fiber Optic Installation 2km	SLAC	B&H	2	2 wks	\$0.00	\$0.00	\$5,440.00	\$5,440.00	\$1,088.00	\$1,632.00	\$8,160.
		SLAC T&M Crafts - Union Electrician		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$5,440.00	\$0.00	\$0.00	\$0.
349	1.2.2.9.4.8	Fiber Optic Installation 2km	SLAC	M&S	2	0 wks	\$0.00	\$14,000.00	\$0.00	\$14,000.00	\$840.00	\$3,710.00	\$18,550
		SLAC M&S Total		M&S	0	14,000	\$0.00	\$0.00	\$0.00	\$14,000.00	\$0.00	\$0.00	\$0.
350	1.2.2.9.4.8	Testing	SLAC	ED&I	2	1 wk	\$0.00	\$0.00	\$2,947.20	\$2,947.20	\$589.44	\$884.16	\$4,420
\dashv		SLAC Controls: Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,947.20	\$0.00	\$0.00	\$0.
351	1.2.2.9.4.9	RF Stability Testing	SLAC		0	150 wks	\$0.00	\$0.00	\$462,020.00	\$462,020.00	\$92,404.00	\$138,606.00	\$693,030.
352	1.2.2.9.4.9	RF feedback measurements	SLAC	ED&I	2	50 wks	\$0.00	\$0.00	\$144,660.00	\$144,660.00	\$28,932.00	\$43,398.00	\$216,990.
\dashv		SLAC Klystron: Engineer		ED&I	0	50 wks	\$0.00	\$0.00	\$0.00	\$144,660.00	\$0.00	\$0.00	\$0.
353	1.2.2.9.4.9	RF Feedback Setup	SLAC	ED&I	2	50 wks	\$0.00	\$0.00	\$170,000.00	\$170,000.00	\$34,000.00	\$51,000.00	\$255,000
		SLAC Physicist - Senior Scientist		ED&I	0	50 wks	\$0.00	\$0.00	\$0.00	\$170,000.00	\$0.00	\$0.00	\$0.

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ID 2354		Task Name	OBS	PHASE ED&I	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost \$44,208.00	Total Cost \$221,040.0
354	1.2.2.9.4.9	RF Feedback Algorithm Adjustments	SLAC		2	50 wks	\$0.00	\$0.00	\$147,360.00	\$147,360.00	\$29,472.00		
		SLAC Controls: Engineer		ED&I	0	50 wks	\$0.00	\$0.00	\$0.00	\$147,360.00	\$0.00	\$0.00	\$0.0
355	1.2.3	UNDULATOR			0	2,684.95 wks	\$5,627,398.00		\$2,057,317.44	\$33,733,715.44	\$5,384,051.70	\$10,830,563.32	\$49,948,330.4
356	1.2.3.1	PED			0	1,874.5 wks	\$5,627,398.00	\$0.00	\$0.00	\$5,627,398.00	\$1,496,754.22	\$2,390,233.12	\$9,514,385.3
357	1.2.3.1.1	Undulators			0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
358	1.2.3.1.1.1	Design Engineer	ANL		4	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
359	1.2.3.1.1.2	Drafting	ANL		4	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
360	1.2.3.1.2	Und. mech sys PED			0	303 wks	\$940,808.40	\$0.00	\$0.00	\$940,808.40	\$257,131.74	\$419,279.05	\$1,617,219.
361	1.2.3.1.2.1	proj management	ANL	ED&I	3	48 wks	\$142,675.20	\$0.00	\$0.00	\$142,675.20	\$42,517.21	\$64,817.34	\$250,009.
	1.2.3.1.2.1	ANL Project Management		ED&I	0	48 wks	\$0.00	\$0.00	\$0.00	\$142,675.20	\$0.00	\$0.00	\$0.
362	1.2.3.1.2.1	engineering	ANL	ED&I	3	36 wks	\$107,006.40	\$0.00	\$0.00	\$107,006.40	\$31,887.91	\$48,613.01	\$187,507.
	1.2.3.1.2.1	ANL Mechanical Engineer		ED&I	0	36 wks	\$0.00	\$0.00	\$0.00	\$107,006.40	\$0.00	\$0.00	\$0.
363	1.2.3.1.2.1	engineering	ANL	ED&I	3	36 wks	\$107,006.40	\$0.00	\$0.00	\$107,006.40	\$31,887.91	\$48,613.01	\$187,507.
	1.2.3.1.2.1	ANL Physicist - Senior Scientist		ED&I	0	36 wks	\$0.00	\$0.00	\$0.00	\$107,006.40	\$0.00	\$0.00	\$0.
364	1.2.3.1.2.1	design	ANL	ED&I	3	52 wks	\$105,747.20	\$0.00	\$0.00	\$105,747.20	\$31,512.67	\$48,040.95	\$185,300
	1.2.3.1.2.1	ANL Mech Drafting/Design		ED&I	0	52 wks	\$0.00	\$0.00	\$0.00	\$105,747.20	\$0.00	\$0.00	\$0.
365	1.2.3.1.2.1	design	ANL	ED&I	3	24 wks	\$71,337.60	\$0.00	\$0.00	\$71,337.60	\$21,258.60	\$32,408.67	\$125,004
	1.2.3.1.2.1	-	AINL	ED&I		24 wks	\$0.00		\$0.00			\$0.00	\$123,004
		ANL Physicist -Scientist			0			\$0.00		\$71,337.60	\$0.00		
366	1.2.3.1.2.1	prototype	ANL	ED&I	3	24 wks	\$71,337.60	\$0.00	\$0.00	\$71,337.60	\$21,258.60	\$32,408.67	\$125,004
	1.2.3.1.2.1	ANL Mechanical Engineer		ED&I	0	24 wks	\$0.00	\$0.00	\$0.00	\$71,337.60	\$0.00	\$0.00	\$0
367	1.2.3.1.2.1	prototype	ANL	ED&I	3	24 wks	\$71,337.60	\$0.00	\$0.00	\$71,337.60	\$21,258.60	\$32,408.67	\$125,004
	1.2.3.1.2.1	ANL Physicist -Scientist		ED&I	0	24 wks	\$0.00	\$0.00	\$0.00	\$71,337.60	\$0.00	\$0.00	\$0.
368	1.2.3.1.2.1	prototype	ANL	B&H	3	24 wks	\$48,806.40	\$0.00	\$0.00	\$48,806.40	\$11,811.15	\$21,216.14	\$81,833
	1.2.3.1.2.1	ANL PCD:Technician		B&H	0	24 wks	\$0.00	\$0.00	\$0.00	\$48,806.40	\$0.00	\$0.00	\$0.
369	1.2.3.1.2.1	prototype	ANL	M&S	3	0 wks	\$122,000.00	\$0.00	\$0.00	\$122,000.00	\$15,860.00	\$48,251.00	\$186,111
		ANL M&S Total		M&S	0	122,000	\$0.00	\$0.00	\$0.00	\$122,000.00	\$0.00	\$0.00	\$0.
370	1.2.3.1.2.1	installation procedure	ANL	ED&I	3	8 wks	\$23,779.20	\$0.00	\$0.00	\$23,779.20	\$7,086.20	\$10,802.89	\$41,668
	1.2.3.1.2.1	ANL Mechanical Engineer		ED&I	0	8 wks	\$0.00	\$0.00	\$0.00	\$23,779.20	\$0.00	\$0.00	\$0.
371	1.2.3.1.2.1	installation procedure	ANL	ED&I	3	8 wks	\$13,299.20	\$0.00	\$0.00	\$13,299.20	\$3,963.16	\$6,041.83	\$23,304
	1.2.3.1.2.1	ANL Administration		ED&I	0	8 wks	\$0.00	\$0.00	\$0.00	\$13,299.20	\$0.00	\$0.00	\$0
372	1.2.3.1.2.1	prepare bid package	ANL	ED&I	3	3 wks	\$8,917.20	\$0.00	\$0.00	\$8,917.20	\$2,657.33	\$4,051.08	\$15,625
	1.2.3.1.2.1	ANL Project Management		ED&I	0	3 wks	\$0.00	\$0.00	\$0.00	\$8,917.20	\$0.00	\$0.00	\$0
373	1.2.3.1.2.1	prepare bid package	ANL	ED&I	3	8 wks	\$23,779.20	\$0.00	\$0.00	\$23,779.20	\$7,086.20	\$10,802.89	\$41,668
J13			AINL						,,,,,				
	1.2.3.1.2.1	ANL Mechanical Engineer		ED&I	0	8 wks	\$0.00	\$0.00	\$0.00	\$23,779.20	\$0.00	\$0.00	\$0.
374	1.2.3.1.2.1	prepare bid package	ANL	ED&I	3	8 wks	\$23,779.20	\$0.00	\$0.00	\$23,779.20	\$7,086.20	\$10,802.89	\$41,668.

ID		Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
	1.2.3.1.2.1	ANL Physicist -Scientist		ED&I	0	8 wks	\$0.00	\$0.00	\$0.00	\$23,779.20	\$0.00	\$0.00	\$0.00
2375	1.2.3.1.3	Und. vac sys PED			0	306 wks	\$923,795.60	\$0.00	\$0.00	\$923,795.60	\$255,757.93	\$412,843.74	\$1,592,397.27
2376	1.2.3.1.3.1	Proj management	ANL	ED&I	3	48 wks	\$142,675.20	\$0.00	\$0.00	\$142,675.20	\$42,517.21	\$64,817.34	\$250,009.7
		ANL Project Management		ED&I	0	48 wks	\$0.00	\$0.00	\$0.00	\$142,675.20	\$0.00	\$0.00	\$0.00
2377	1.2.3.1.3.2	Engineering	ANL	ED&I	3	48 wks	\$142,675.20	\$0.00	\$0.00	\$142,675.20	\$42,517.21	\$64,817.34	\$250,009.7
		ANL Mechanical Engineer		ED&I	0	48 wks	\$0.00	\$0.00	\$0.00	\$142,675.20	\$0.00	\$0.00	\$0.00
2378	1.2.3.1.3.2	Engineering	ANL	ED&I	3	24 wks	\$71,337.60	\$0.00	\$0.00	\$71,337.60	\$21,258.60	\$32,408.67	\$125,004.8
		ANL Physicist -Scientist		ED&I	0	24 wks	\$0.00	\$0.00	\$0.00	\$71,337.60	\$0.00	\$0.00	\$0.00
2379	1.2.3.1.3.3	Design	ANL	ED&I	3	52 wks	\$105,747.20	\$0.00	\$0.00	\$105,747.20	\$31,512.67	\$48,040.95	\$185,300.8
		ANL Mech Drafting/Design		ED&I	0	52 wks	\$0.00	\$0.00	\$0.00	\$105,747.20	\$0.00	\$0.00	\$0.00
2380	1.2.3.1.3.3	Design	ANL	ED&I	3	24 wks	\$71,337.60	\$0.00	\$0.00	\$71,337.60	\$21,258.60	\$32,408.67	\$125,004.8
		ANL Physicist -Scientist		ED&I	0	24 wks	\$0.00	\$0.00	\$0.00	\$71,337.60	\$0.00	\$0.00	\$0.00
2381	1.2.3.1.3.4	Prototype	ANL	ED&I	3	24 wks	\$71,337.60	\$0.00	\$0.00	\$71,337.60	\$21,258.60	\$32,408.67	\$125,004.8
2301	1.2.3.1.3.4		ANL	ED&I	0	24 wks	\$0.00		\$0.00			\$0.00	\$0.00
		ANL Mechanical Engineer						\$0.00		\$71,337.60	\$0.00		
2382	1.2.3.1.3.4	Prototype	ANL	ED&I	3	24 wks	\$71,337.60	\$0.00	\$0.00	\$71,337.60	\$21,258.60	\$32,408.67	\$125,004.8
		ANL Physicist -Scientist		ED&I	0	24 wks	\$0.00	\$0.00	\$0.00	\$71,337.60	\$0.00	\$0.00	\$0.00
2383	1.2.3.1.3.4	Prototype	ANL	B&H	3	24 wks	\$48,806.40	\$0.00	\$0.00	\$48,806.40	\$11,811.15	\$21,216.14	\$81,833.6
		ANL PCD:Technician		B&H	0	24 wks	\$0.00	\$0.00	\$0.00	\$48,806.40	\$0.00	\$0.00	\$0.00
2384	1.2.3.1.3.4	Prototype	ANL	M&S	3	0 wks	\$100,000.00	\$0.00	\$0.00	\$100,000.00	\$13,000.00	\$39,550.00	\$152,550.0
		ANL M&S Total		M&S	0	100,000	\$0.00	\$0.00	\$0.00	\$100,000.00	\$0.00	\$0.00	\$0.00
2385	1.2.3.1.3.5	Assembly procedure	ANL	ED&I	3	8 wks	\$23,779.20	\$0.00	\$0.00	\$23,779.20	\$7,086.20	\$10,802.89	\$41,668.2
		ANL Mechanical Engineer		ED&I	0	8 wks	\$0.00	\$0.00	\$0.00	\$23,779.20	\$0.00	\$0.00	\$0.00
2386	1.2.3.1.3.5	Assembly procedure	ANL	ED&I	3	3 wks	\$4,987.20	\$0.00	\$0.00	\$4,987.20	\$1,486.19	\$2,265.68	\$8,739.0
		ANL Administration		ED&I	0	3 wks	\$0.00	\$0.00	\$0.00	\$4,987.20	\$0.00	\$0.00	\$0.00
2387	1.2.3.1.3.6	Installation procedure	ANL	ED&I	3	8 wks	\$23,779.20	\$0.00	\$0.00	\$23,779.20	\$7,086.20	\$10,802.89	\$41,668.2
		ANL Mechanical Engineer		ED&I	0	8 wks	\$0.00	\$0.00	\$0.00	\$23,779.20	\$0.00	\$0.00	\$0.00
2388	1.2.3.1.3.6	Installation procedure	ANL	ED&I	3	8 wks	\$13,299.20	\$0.00	\$0.00	\$13,299.20	\$3,963.16	\$6,041.83	\$23,304.1
		ANL Administration		ED&I	0	8 wks	\$0.00	\$0.00	\$0.00	\$13,299.20	\$0.00	\$0.00	\$0.00
2389	1.2.3.1.3.7	Prepare bid package	ANL	ED&I	3	3 wks	\$8,917.20	\$0.00	\$0.00	\$8,917.20	\$2,657.33	\$4,051.08	\$15,625.6
		ANL Project Management		ED&I	0	3 wks	\$0.00	\$0.00	\$0.00	\$8,917.20	\$0.00	\$0.00	\$0.00
2390	1.2.3.1.3.7	ANL Project Management Prepare bid package	ANL	ED&I	3	8 wks	\$23,779.20	\$0.00	\$0.00	\$23,779.20	\$7,086.20	\$10,802.89	\$41,668.2
.590	1.2.3.1.3.7	· · · · -	AINL	ED&I			\$23,779.20	\$0.00					\$41,668.2
		ANL Mechanical Engineer		ED&I	0	8 wks		.	\$0.00	\$23,779.20	\$0.00	\$0.00	
2391	1.2.3.1.4	Und. diag sys PED			0	848 wks	\$2,433,410.40	\$0.00	\$0.00	\$2,433,410.40	\$669,206.30	\$1,085,915.84	\$4,188,532.54
2392	1.2.3.1.4.1	proj management	ANL	ED&I	3	12 wks	\$35,668.80	\$0.00	\$0.00	\$35,668.80	\$10,629.30	\$16,204.34	\$62,502.4
		ANL Project Management		ED&I	0	12 wks	\$0.00	\$0.00	\$0.00	\$35,668.80	\$0.00	\$0.00	\$0.00

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ID		Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
393	1.2.3.1.4.1	beam position monitoring	ANL	ED&I	3	24 wks	\$48,806.40	\$0.00	\$0.00	\$48,806.40	\$14,544.31	\$22,172.75	\$85,523.
		ANL Mech Drafting/Design		ED&I	0	24 wks	\$0.00	\$0.00	\$0.00	\$48,806.40	\$0.00	\$0.00	\$0.
394	1.2.3.1.4.1	beam position monitoring	ANL	ED&I	3	48 wks	\$142,675.20	\$0.00	\$0.00	\$142,675.20	\$42,517.21	\$64,817.34	\$250,009
		ANL Physicist -Scientist		ED&I	0	48 wks	\$0.00	\$0.00	\$0.00	\$142,675.20	\$0.00	\$0.00	\$0
395	1.2.3.1.4.1	beam position monitoring	ANL	B&H	3	48 wks	\$97,612.80	\$0.00	\$0.00	\$97,612.80	\$23,622.30	\$42,432.28	\$163,667
		ANL PCD:Technician		B&H	0	48 wks	\$0.00	\$0.00	\$0.00	\$97,612.80	\$0.00	\$0.00	\$0
96	1.2.3.1.4.1	beam position monitoring	ANL	ED&I	3	48 wks	\$142,675.20	\$0.00	\$0.00	\$142,675.20	\$42,517.21	\$64,817.34	\$250,009
		ANL Controls: Programmer		ED&I	0	48 wks	\$0.00	\$0.00	\$0.00	\$142,675.20	\$0.00	\$0.00	\$0
97	1.2.3.1.4.1	wire scn/Cherenkov det.	ANL	ED&I	3	24 wks	\$48,806.40	\$0.00	\$0.00	\$48,806.40	\$14,544.31	\$22,172.75	\$85,523
		ANL Mech Drafting/Design		ED&I	0	24 wks	\$0.00	\$0.00	\$0.00	\$48,806.40	\$0.00	\$0.00	\$0
98	1.2.3.1.4.1	wire scn/Cherenkov det.	ANL	ED&I	3	48 wks	\$142,675.20	\$0.00	\$0.00	\$142,675.20	\$42,517.21	\$64,817.34	\$250,009
		ANL Physicist -Scientist		ED&I	0	48 wks	\$0.00	\$0.00	\$0.00	\$142,675.20	\$0.00	\$0.00	\$(
99	1.2.3.1.4.1	wire scn/Cherenkov det.	ANL	B&H	3	48 wks	\$97,612.80	\$0.00	\$0.00	\$97,612.80	\$23,622.30	\$42,432.28	\$163,66
99	1.2.3.1.4.1	ANL PCD:Technician	ANL	B&H									\$103,00
					0	48 wks	\$0.00	\$0.00	\$0.00	\$97,612.80	\$0.00	\$0.00	
00	1.2.3.1.4.1	wire scn/Cherenkov det.	ANL	ED&I	3	48 wks	\$142,675.20	\$0.00	\$0.00	\$142,675.20	\$42,517.21	\$64,817.34	\$250,00
		ANL Controls: Programmer		ED&I	0	48 wks	\$0.00	\$0.00	\$0.00	\$142,675.20	\$0.00	\$0.00	\$
01	1.2.3.1.4.1	OTR imaging	ANL	ED&I	3	24 wks	\$48,806.40	\$0.00	\$0.00	\$48,806.40	\$14,544.31	\$22,172.75	\$85,52
		ANL Mech Drafting/Design		ED&I	0	24 wks	\$0.00	\$0.00	\$0.00	\$48,806.40	\$0.00	\$0.00	\$
102	1.2.3.1.4.1	OTR imaging	ANL	ED&I	3	48 wks	\$142,675.20	\$0.00	\$0.00	\$142,675.20	\$42,517.21	\$64,817.34	\$250,00
		ANL Physicist -Scientist		ED&I	0	48 wks	\$0.00	\$0.00	\$0.00	\$142,675.20	\$0.00	\$0.00	\$
03	1.2.3.1.4.1	OTR imaging	ANL	B&H	3	48 wks	\$97,612.80	\$0.00	\$0.00	\$97,612.80	\$23,622.30	\$42,432.28	\$163,66
		ANL PCD:Technician		B&H	0	48 wks	\$0.00	\$0.00	\$0.00	\$97,612.80	\$0.00	\$0.00	\$
104	1.2.3.1.4.1	OTR imaging	ANL	ED&I	3	48 wks	\$142,675.20	\$0.00	\$0.00	\$142,675.20	\$42,517.21	\$64,817.34	\$250,00
		ANL Controls: Programmer		ED&I	0	48 wks	\$0.00	\$0.00	\$0.00	\$142,675.20	\$0.00	\$0.00	\$6
105	1.2.3.1.4.1	current monitoring	ANL	ED&I	3	24 wks	\$48,806.40	\$0.00	\$0.00	\$48,806.40	\$14,544.31	\$22,172.75	\$85,52
		ANL Mech Drafting/Design		ED&I	0	24 wks	\$0.00	\$0.00	\$0.00	\$48,806.40	\$0.00	\$0.00	\$
06	1.2.3.1.4.1	current monitoring	ANL	ED&I	3	24 wks	\$71,337.60	\$0.00	\$0.00	\$71,337.60	\$21,258.60	\$32,408.67	\$125,00
-00	1.2.0.1.4.1	-	ANE	ED&I	0	24 wks	\$0.00	\$0.00	\$0.00	\$71,337.60	\$0.00	\$0.00	\$123,00
0.7		ANL Physicist -Scientist											
07	1.2.3.1.4.1	current monitoring	ANL	B&H	3	8 wks	\$16,268.80	\$0.00	\$0.00	\$16,268.80	\$3,937.05	\$7,072.05	\$27,27
		ANL PCD:Technician		B&H	0	8 wks	\$0.00	\$0.00	\$0.00	\$16,268.80	\$0.00	\$0.00	\$
80	1.2.3.1.4.1	current monitoring	ANL	ED&I	3	12 wks	\$35,668.80	\$0.00	\$0.00	\$35,668.80	\$10,629.30	\$16,204.34	\$62,50
		ANL Controls: Programmer		ED&I	0	12 wks	\$0.00	\$0.00	\$0.00	\$35,668.80	\$0.00	\$0.00	\$
109	1.2.3.1.4.1	prototype	ANL	M&S	3	0 wks	\$80,000.00	\$0.00	\$0.00	\$80,000.00	\$10,400.00	\$31,640.00	\$122,04
		ANL M&S Total		M&S	0	80,000	\$0.00	\$0.00	\$0.00	\$80,000.00	\$0.00	\$0.00	\$6
110	1.2.3.1.4.1	assembly procedure	ANL	ED&I	3	8 wks	\$23,779.20	\$0.00	\$0.00	\$23,779.20	\$7,086.20	\$10,802.89	\$41,668

ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		ANL Electrical Engineer		ED&I	0	8 wks	\$0.00	\$0.00	\$0.00	\$23,779.20	\$0.00	\$0.00	\$0.0
411	1.2.3.1.4.1	assembly procedure	ANL	ED&I	3	8 wks	\$13,299.20	\$0.00	\$0.00	\$13,299.20	\$3,963.16	\$6,041.83	\$23,304.1
		ANL Administration		ED&I	0	8 wks	\$0.00	\$0.00	\$0.00	\$13,299.20	\$0.00	\$0.00	\$0.0
412	1.2.3.1.4.1	installation procedure	ANL	ED&I	3	8 wks	\$23,779.20	\$0.00	\$0.00	\$23,779.20	\$7,086.20	\$10,802.89	\$41,668.2
		ANL Electrical Engineer		ED&I	0	8 wks	\$0.00	\$0.00	\$0.00	\$23,779.20	\$0.00	\$0.00	\$0.0
2413	1.2.3.1.4.1	installation procedure	ANL	ED&I	3	8 wks	\$13,299.20	\$0.00	\$0.00	\$13,299.20	\$3,963.16	\$6,041.83	\$23,304.1
		ANL Administration		ED&I	0	8 wks	\$0.00	\$0.00	\$0.00	\$13,299.20	\$0.00	\$0.00	\$0.0
2414	1.2.3.1.4.1	prepare bid package	ANL	ED&I	3	3 wks	\$8,917.20	\$0.00	\$0.00	\$8,917.20	\$2,657.33	\$4,051.08	\$15,625.6
		ANL Project Management		ED&I	0	3 wks	\$0.00	\$0.00	\$0.00	\$8,917.20	\$0.00	\$0.00	\$0.0
2415	1.2.3.1.4.1	prepare bid package	ANL	ED&I	3	8 wks	\$23,779.20	\$0.00	\$0.00	\$23,779.20	\$7,086.20	\$10,802.89	\$41,668.2
		ANL Electrical Engineer		ED&I	0	8 wks	\$0.00	\$0.00	\$0.00	\$23,779.20	\$0.00	\$0.00	\$0.0
2416	1.2.3.1.4.1	prepare bid package	ANL		3	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
2417	1.2.3.1.4.2	X-ray diagnostics PED	ANL		0	221 wks	\$743,498.00	\$0.00	\$0.00	\$743,498.00	\$196,362.40	\$328,951.14	\$1,268,811.5
2418	1.2.3.1.4.2	Proj management	ANL	ED&I	3	15 wks	\$44,586.00	\$0.00	\$0.00	\$44,586.00	\$13,286.63	\$20,255.42	\$78,128.0
		ANL Project Management		ED&I	0	15 wks	\$0.00	\$0.00	\$0.00	\$44,586.00	\$0.00	\$0.00	\$0.0
2419	1.2.3.1.4.2	Design	ANL	ED&I	3	48 wks	\$142,675.20	\$0.00	\$0.00	\$142,675.20	\$42,517.21	\$64,817.34	\$250,009.7
		ANL Physicist -Scientist		ED&I	0	48 wks	\$0.00	\$0.00	\$0.00	\$142,675.20	\$0.00	\$0.00	\$0.0
2420	1.2.3.1.4.2	Design	ANL	ED&I	3	48 wks	\$142,675.20	\$0.00	\$0.00	\$142,675.20	\$42,517.21	\$64,817.34	\$250,009.7
		ANL Mechanical Engineer		ED&I	0	48 wks	\$0.00	\$0.00	\$0.00	\$142,675.20	\$0.00	\$0.00	\$0.0
2421	1.2.3.1.4.2	Design	ANL	ED&I	3	48 wks	\$97,612.80	\$0.00	\$0.00	\$97,612.80	\$29,088.61	\$44,345.50	\$171,046.9
		ANL Mech Drafting/Design		ED&I	0	48 wks	\$0.00	\$0.00	\$0.00	\$97,612.80	\$0.00	\$0.00	\$0.0
2422	1.2.3.1.4.2	Design	ANL	ED&I	3	24 wks	\$71,337.60	\$0.00	\$0.00	\$71,337.60	\$21,258.60	\$32,408.67	\$125,004.8
		ANL Controls: Programmer		ED&I	0	24 wks	\$0.00	\$0.00	\$0.00	\$71,337.60	\$0.00	\$0.00	\$0.0
2423	1.2.3.1.4.2	Design	ANL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
2424	1.2.3.1.4.2	Prototype	ANL	M&S	3	0 wks	\$150,000.00	\$0.00	\$0.00	\$150,000.00	\$19,500.00	\$59,325.00	\$228,825.0
		ANL M&S Total		M&S	0	150,000	\$0.00	\$0.00	\$0.00	\$150,000.00	\$0.00	\$0.00	\$0.0
2425	1.2.3.1.4.2	Prototype	ANL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
2426	1.2.3.1.4.2	Assembly proc.	ANL	ED&I	3	8 wks	\$23,779.20	\$0.00	\$0.00	\$23,779.20	\$7,086.20	\$10,802.89	\$41,668.2
		ANL Mechanical Engineer		ED&I	0	8 wks	\$0.00	\$0.00	\$0.00	\$23,779.20	\$0.00	\$0.00	\$0.0
2427	1.2.3.1.4.2	Assembly proc.	ANL	ED&I	3	3 wks	\$4,987.20	\$0.00	\$0.00	\$4,987.20	\$1,486.19	\$2,265.68	\$8,739.0
		ANL Administration		ED&I	0	3 wks	\$0.00	\$0.00	\$0.00	\$4,987.20	\$0.00	\$0.00	\$0.0
2428	1.2.3.1.4.2	Instill. Proc.	ANL	ED&I	3	8 wks	\$23,779.20	\$0.00	\$0.00	\$23,779.20	\$7,086.20	\$10,802.89	\$41,668.2
		ANL Mechanical Engineer		ED&I	0	8 wks	\$0.00	\$0.00	\$0.00	\$23,779.20	\$0.00	\$0.00	\$0.0
2429	1.2.3.1.4.2	, and the second	ANL	ED&I	3	3 wks	\$4,987.20	\$0.00	\$0.00	\$4,987.20	\$1,486.19	\$2,265.68	\$8,739.0
		ANL Administration		ED&I	0	3 wks	\$0.00	\$0.00	\$0.00	\$4,987.20	\$0.00	\$0.00	\$0.0

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ID		Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
2430	1.2.3.1.4.2	Prepare Procurements	ANL	ED&I	3	8 wks	\$23,779.20	\$0.00	\$0.00	\$23,779.20	\$7,086.20	\$10,802.89	\$41,668.2
		ANL Mechanical Engineer		ED&I	0	8 wks	\$0.00	\$0.00	\$0.00	\$23,779.20	\$0.00	\$0.00	\$0.0
431	1.2.3.1.4.2	Prepare Procurements	ANL	ED&I	3	8 wks	\$13,299.20	\$0.00	\$0.00	\$13,299.20	\$3,963.16	\$6,041.83	\$23,304.1
		ANL Administration		ED&I	0	8 wks	\$0.00	\$0.00	\$0.00	\$13,299.20	\$0.00	\$0.00	\$0.0
432	1.2.3.1.5	Und. PS PED			0	37 wks	\$149,848.40	\$0.00	\$0.00	\$149,848.40	\$35,343.77	\$64,817.26	\$250,009.4
433	1.2.3.1.5.1	Proj Management	ANL	ED&I	3	2 wks	\$5,944.80	\$0.00	\$0.00	\$5,944.80	\$1,771.55	\$2,700.72	\$10,417.0
		ANL Project Management		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$5,944.80	\$0.00	\$0.00	\$0.0
434	1.2.3.1.5.2	Engineering	ANL	ED&I	3	12 wks	\$35,668.80	\$0.00	\$0.00	\$35,668.80	\$10,629.30	\$16,204.34	\$62,502.4
		ANL Electrical Engineer		ED&I	0	12 wks	\$0.00	\$0.00	\$0.00	\$35,668.80	\$0.00	\$0.00	\$0.0
435	1.2.3.1.5.3	Prototype	ANL	ED&I	3	8 wks	\$23,779.20	\$0.00	\$0.00	\$23,779.20	\$7,086.20	\$10,802.89	\$41,668.2
		ANL Electrical Engineer		ED&I	0	8 wks	\$0.00	\$0.00	\$0.00	\$23,779.20	\$0.00	\$0.00	\$0.0
436	1.2.3.1.5.4	Prototype	ANL	B&H	3	8 wks	\$16,268.80	\$0.00	\$0.00	\$16,268.80	\$3,937.05	\$7,072.05	\$27,277.9
		ANL PCD:Technician		B&H	0	8 wks	\$0.00	\$0.00	\$0.00	\$16,268.80	\$0.00	\$0.00	\$0.0
437	1.2.3.1.5.5	Prototype	ANL	M&S	3	0 wks	\$50,000.00	\$0.00	\$0.00	\$50,000.00	\$6,500.00	\$19,775.00	\$76,275.0
		ANL M&S Total		M&S	0	50,000	\$0.00	\$0.00	\$0.00	\$50,000.00	\$0.00	\$0.00	\$0.0
138	1.2.3.1.5.6	Assembly procedure	ANL	ED&I	3	2 wks	\$5,944.80	\$0.00	\$0.00	\$5,944.80	\$1,771.55	\$2,700.72	\$10,417.
		ANL Electrical Engineer		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$5,944.80	\$0.00	\$0.00	\$0.0
439	1.2.3.1.5.7	Assembly procedure	ANL	ED&I	3	1 wk	\$1,662.40	\$0.00	\$0.00	\$1,662.40	\$495.40	\$755.23	\$2,913.0
		ANL Administration		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$1,662.40	\$0.00	\$0.00	\$0.0
440	1.2.3.1.5.8	Installation procedure	ANL	ED&I	3	2 wks	\$5,944.80	\$0.00	\$0.00	\$5,944.80	\$1,771.55	\$2,700.72	\$10,417.
		ANL Electrical Engineer		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$5,944.80	\$0.00	\$0.00	\$0.0
441	1.2.3.1.5.9	Installation procedure	ANL	ED&I	3	1 wk	\$1,662.40	\$0.00	\$0.00	\$1,662.40	\$495.40	\$755.23	\$2,913.
		ANL Administration		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$1,662.40	\$0.00	\$0.00	\$0.0
442	1.2.3.1.5.10	Prepare bid package	ANL	ED&I	3	1 wk	\$2,972.40	\$0.00	\$0.00	\$2,972.40	\$885.78	\$1,350.36	\$5,208.5
		ANL Electrical Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,972.40	\$0.00	\$0.00	\$0.0
443	1.2.3.1.6	Und. electromagnet sys.			0	51 wks	\$181,462.00	\$0.00	\$0.00	\$181,462.00	\$46,444.62	\$79,767.32	\$307,673.9
444	1.2.3.1.6.1	Proj management	ANL	ED&I	3	2 wks	\$5,944.80	\$0.00	\$0.00	\$5,944.80	\$1,771.55	\$2,700.72	\$10,417.0
		ANL Project Management		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$5,944.80	\$0.00	\$0.00	\$0.0
445	1.2.3.1.6.2	· -	ANL	ED&I	3	12 wks	\$35,668.80	\$0.00	\$0.00	\$35,668.80	\$10,629.30	\$16,204.34	\$62,502.4
		ANL Electrical Engineer	7.112	ED&I	0	12 wks	\$0.00	\$0.00	\$0.00	\$35,668.80	\$0.00	\$0.00	\$0.
146	122162	-	ANL				\$35,668.80						\$62,502.
446	1.2.3.1.6.3	Engineering ANL Mechanical Engineer	AINL	ED&I	3	12 wks	\$35,668.80	\$0.00 \$0.00	\$0.00 \$0.00	\$35,668.80 \$35,668.80	\$10,629.30 \$0.00	\$16,204.34 \$0.00	\$62,502.
447	1.2.3.1.6.4	-	ANL	ED&I	3		\$0.00	\$0.00	\$0.00		\$7,086.20	\$0.00	\$41,668
447	1.2.3.1.6.4	<i>"</i>	ANL			8 wks				\$23,779.20			
		ANL Mechanical Engineer		ED&I	0	8 wks	\$0.00	\$0.00	\$0.00	\$23,779.20	\$0.00	\$0.00	\$0.0
448	1.2.3.1.6.5	Prototype	ANL	B&H	3	8 wks	\$16,268.80	\$0.00	\$0.00	\$16,268.80	\$3,937.05	\$7,072.05	\$27,277.9

ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		ANL PCD:Technician		B&H	0	8 wks	\$0.00	\$0.00	\$0.00	\$16,268.80	\$0.00	\$0.00	\$0.0
449	1.2.3.1.6.6	Prototype	ANL	M&S	3	0 wks	\$40,000.00	\$0.00	\$0.00	\$40,000.00	\$5,200.00	\$15,820.00	\$61,020.0
		ANL M&S Total		M&S	0	40,000	\$0.00	\$0.00	\$0.00	\$40,000.00	\$0.00	\$0.00	\$0.0
450	1.2.3.1.6.7	Assembly procedure	ANL	ED&I	3	2 wks	\$5,944.80	\$0.00	\$0.00	\$5,944.80	\$1,771.55	\$2,700.72	\$10,417.0
		ANL Mechanical Engineer		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$5,944.80	\$0.00	\$0.00	\$0.0
451	1.2.3.1.6.8	Assembly procedure	ANL	ED&I	3	1 wk	\$1,662.40	\$0.00	\$0.00	\$1,662.40	\$495.40	\$755.23	\$2,913.
		ANL Administration		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$1,662.40	\$0.00	\$0.00	\$0.
452	1.2.3.1.6.9	Installation procedure	ANL	ED&I	3	3 wks	\$8,917.20	\$0.00	\$0.00	\$8,917.20	\$2,657.33	\$4,051.08	\$15,625.
		ANL Mechanical Engineer		ED&I	0	3 wks	\$0.00	\$0.00	\$0.00	\$8,917.20	\$0.00	\$0.00	\$0.
453	1.2.3.1.6.10	Installation procedure	ANL	ED&I	3	1 wk	\$1,662.40	\$0.00	\$0.00	\$1,662.40	\$495.40	\$755.23	\$2,913.
		ANL Administration		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$1,662.40	\$0.00	\$0.00	\$0.
454	1.2.3.1.6.11	Prepare bid package	ANL	ED&I	3	2 wks	\$5,944.80	\$0.00	\$0.00	\$5,944.80	\$1,771.55	\$2,700.72	\$10,417.
		ANL Mechanical Engineer		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$5,944.80	\$0.00	\$0.00	\$0.
455	1.2.3.1.7	Und. Systems controls			0	143 wks	\$545,053.20	\$0.00	\$0.00	\$545,053.20	\$142,265.85	\$192,663.91	\$879,982.
		•	4511								, ,		
456	1.2.3.1.7.1	EPICS Hardware	ANL		0	6 wks	\$42,834.40	\$0.00	\$0.00	\$42,834.40	\$8,564.65	\$11,306.49	\$62,705.
457	1.2.3.1.7.1.1	VME Crate	ANL	ED&I	1	1 wk	\$2,972.40	\$0.00	\$0.00	\$2,972.40	\$885.78	\$578.73	\$4,436.
		ANL Controls: Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,972.40	\$0.00	\$0.00	\$0.
458	1.2.3.1.7.1.1	VME Processor	ANL	ED&I	1	1 wk	\$2,972.40	\$0.00	\$0.00	\$2,972.40	\$885.78	\$578.73	\$4,436.
		ANL Controls: Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,972.40	\$0.00	\$0.00	\$0.
459	1.2.3.1.7.1.1	VME Transistion h/w	ANL	ED&I	1	1 wk	\$2,972.40	\$0.00	\$0.00	\$2,972.40	\$885.78	\$578.73	\$4,436
		ANL Controls: Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,972.40	\$0.00	\$0.00	\$0.
460	1.2.3.1.7.1.1	VME Fieldbus intfc	ANL	ED&I	2	1 wk	\$2,972.40	\$0.00	\$0.00	\$2,972.40	\$885.78	\$964.54	\$4,822
		ANL Controls: Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,972.40	\$0.00	\$0.00	\$0.
461	1.2.3.1.7.1.1	VME Timing module	ANL	ED&I	2	1 wk	\$2,972.40	\$0.00	\$0.00	\$2,972.40	\$885.78	\$964.54	\$4,822.
		ANL Controls: Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,972.40	\$0.00	\$0.00	\$0.
462	1.2.3.1.7.1.1	Prototype hardware	ANL	M&S	2	0 wks	\$25,000.00	\$0.00	\$0.00	\$25,000.00	\$3,250.00	\$7,062.50	\$35,312.
		ANL M&S Total		M&S	0	25,000	\$0.00	\$0.00	\$0.00	\$25,000.00	\$0.00	\$0.00	\$0.
463	1.2.3.1.7.1.1	EPICS server	ANL	ED&I	1	1 wk	\$2,972.40	\$0.00	\$0.00	\$2,972.40	\$885.78	\$578.73	\$4,436
		ANL Controls: Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,972.40	\$0.00	\$0.00	\$0.
464	1.2.3.1.7.2	-	ANL		0	14 wks	\$56,613.60	\$0.00	\$0.00	\$56,613.60	\$14,350.85	\$18,512.75	\$89,477.
				ED01								. ,	
465	1.2.3.1.7.2.2		ANL	ED&I	2	1 wk	\$2,972.40	\$0.00	\$0.00	\$2,972.40	\$885.78	\$964.54	\$4,822
		ANL Controls: Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,972.40	\$0.00	\$0.00	\$0.
466	1.2.3.1.7.2.2	, and the second	ANL	ED&I	2	2 wks	\$5,944.80	\$0.00	\$0.00	\$5,944.80	\$1,771.55	\$1,929.09	\$9,645
		ANL Controls: Programmer		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$5,944.80	\$0.00	\$0.00	\$0.
467	1.2.3.1.7.2.2	Vac. Gauge controller (VGC)	ANL	ED&I	2	1 wk	\$2,972.40	\$0.00	\$0.00	\$2,972.40	\$885.78	\$964.54	\$4,822.

ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
טו	CWBS	ANL Controls: Engineer	OBS	ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,972.40	\$0.00	\$0.00	\$0.0
2468	1.2.3.1.7.2.2	Software design - VGC	ANL	ED&I	2	2 wks	\$5,944.80	\$0.00	\$0.00	\$5,944.80	\$1,771.55	\$1,929.09	\$9,645.4
		ANL Controls: Programmer		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$5,944.80	\$0.00	\$0.00	\$0.0
469	1.2.3.1.7.2.2	Gate valve controller (VVC)	ANL	ED&I	2	1 wk	\$2,972.40	\$0.00	\$0.00	\$2,972.40	\$885.78	\$964.54	\$4,822.
		ANL Controls: Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,972.40	\$0.00	\$0.00	\$0.
2470	1.2.3.1.7.2.2	Software design - VVC	ANL	ED&I	2	1 wk	\$2,972.40	\$0.00	\$0.00	\$2,972.40	\$885.78	\$964.54	\$4,822.
		ANL Controls: Programmer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,972.40	\$0.00	\$0.00	\$0.
2471	1.2.3.1.7.2.2	Turbo pump controller (TPC)	ANL	ED&I	3	1 wk	\$2,972.40	\$0.00	\$0.00	\$2,972.40	\$885.78	\$1,350.36	\$5,208.
		ANL Controls: Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,972.40	\$0.00	\$0.00	\$0.
2472	1.2.3.1.7.2.2	Software design - TPC	ANL	ED&I	2	2 wks	\$5,944.80	\$0.00	\$0.00	\$5,944.80	\$1,771.55	\$1,929.09	\$9,645.
		ANL Controls: Programmer		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$5,944.80	\$0.00	\$0.00	\$0.
2473	1.2.3.1.7.2.2	Roughing pump cntlr (RPC)	ANL	ED&I	3	1 wk	\$2,972.40	\$0.00	\$0.00	\$2,972.40	\$885.78	\$1,350.36	\$5,208.
		ANL Controls: Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,972.40	\$0.00	\$0.00	\$0.
2474	1.2.3.1.7.2.2	Prototype hardware	ANL	M&S	2	0 wks	\$15,000.00	\$0.00	\$0.00	\$15,000.00	\$1,950.00	\$4,237.50	\$21,187.
		ANL M&S Total		M&S	0	15,000	\$0.00	\$0.00	\$0.00	\$15,000.00	\$0.00	\$0.00	\$0.
475	1.2.3.1.7.2.2	Software design - RPC	ANL	ED&I	2	2 wks	\$5,944.80	\$0.00	\$0.00	\$5,944.80	\$1,771.55	\$1,929.09	\$9,645
		ANL Controls: Programmer		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$5,944.80	\$0.00	\$0.00	\$0.
2476	1.2.3.1.7.3	Motor controls	ANL		0	12 wks	\$45,668.80	\$0.00	\$0.00	\$45,668.80	\$11,929.30	\$14,399.53	\$71,997.6
2477	1.2.3.1.7.3.1	Strongback motors	ANL	ED&I	2	2 wks	\$5,944.80	\$0.00	\$0.00	\$5,944.80	\$1,771.55	\$1,929.09	\$9,645.
		ANL Controls: Engineer		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$5,944.80	\$0.00	\$0.00	\$0.
2478	1.2.3.1.7.3.1	Software design - ID mtr	ANL	ED&I	2	4 wks	\$11,889.60	\$0.00	\$0.00	\$11,889.60	\$3,543.10	\$3,858.18	\$19,290.
		ANL Controls: Programmer		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$11,889.60	\$0.00	\$0.00	\$0.
2479	1.2.3.1.7.3.1	Quadrupole motors	ANL	ED&I	2	2 wks	\$5,944.80	\$0.00	\$0.00	\$5,944.80	\$1,771.55	\$1,929.09	\$9,645.
		ANL Controls: Engineer		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$5,944.80	\$0.00	\$0.00	\$0.0
2480	1.2.3.1.7.3.1	Prototype hardware	ANL	M&S	2	0 wks	\$10,000.00	\$0.00	\$0.00	\$10,000.00	\$1,300.00	\$2,825.00	\$14,125.
		ANL M&S Total		M&S	0	10,000	\$0.00	\$0.00	\$0.00	\$10,000.00	\$0.00	\$0.00	\$0.0
2481	1.2.3.1.7.3.1	Software design - Quad mtr	ANL	ED&I	2	4 wks	\$11,889.60	\$0.00	\$0.00	\$11,889.60	\$3,543.10	\$3,858.18	\$19,290.
		ANL Controls: Programmer		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$11,889.60	\$0.00	\$0.00	\$0.
2482	1.2.3.1.7.4	Diagnostic controls/DAQ	ANL		0	91 wks	\$320,488.40	\$0.00	\$0.00	\$320,488.40	\$87,105.54	\$123,504.27	\$531,098.
2483	1.2.3.1.7.4.1	RFBPM	ANL	ED&I	3	4 wks	\$11,889.60	\$0.00	\$0.00	\$11,889.60	\$3,543.10	\$5,401.45	\$20,834.
		ANL Controls: Engineer		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$11,889.60	\$0.00	\$0.00	\$0.
2484	1.2.3.1.7.4.1	Software design - RFBPM	ANL	ED&I	2	6 wks	\$17,834.40	\$0.00	\$0.00	\$17,834.40	\$5,314.65	\$5,787.26	\$28,936.
		ANL Controls: Programmer		ED&I	0	6 wks	\$0.00	\$0.00	\$0.00	\$17,834.40	\$0.00	\$0.00	\$0.
2485	1.2.3.1.7.4.1	Cerenkov detector	ANL	ED&I	2	1 wk	\$2,972.40	\$0.00	\$0.00	\$2,972.40	\$885.78	\$964.54	\$4,822.
	-	ANL Controls: Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,972.40	\$0.00	\$0.00	\$0.0

ID		Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
486	1.2.3.1.7.4.1	Software design - cerenkov	ANL	ED&I	2	4 wks	\$11,889.60	\$0.00	\$0.00	\$11,889.60	\$3,543.10	\$3,858.18	\$19,290.8
		ANL Controls: Programmer		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$11,889.60	\$0.00	\$0.00	\$0.0
487	1.2.3.1.7.4.1	Optical station	ANL	ED&I	3	6 wks	\$17,834.40	\$0.00	\$0.00	\$17,834.40	\$5,314.65	\$8,102.17	\$31,251.2
		ANL Controls: Engineer		ED&I	0	6 wks	\$0.00	\$0.00	\$0.00	\$17,834.40	\$0.00	\$0.00	\$0.0
488	1.2.3.1.7.4.1	Software design - Optical	ANL	ED&I	3	8 wks	\$23,779.20	\$0.00	\$0.00	\$23,779.20	\$7,086.20	\$10,802.89	\$41,668.
		ANL Controls: Programmer		ED&I	0	8 wks	\$0.00	\$0.00	\$0.00	\$23,779.20	\$0.00	\$0.00	\$0.
489	1.2.3.1.7.4.1	X-Ray diagnostics	ANL	ED&I	3	6 wks	\$17,834.40	\$0.00	\$0.00	\$17,834.40	\$5,314.65	\$8,102.17	\$31,251.
\dashv		ANL Controls: Engineer		ED&I	0	6 wks	\$0.00	\$0.00	\$0.00	\$17,834.40	\$0.00	\$0.00	\$0.
490	1.2.3.1.7.4.1	Software design- Xray	ANL	ED&I	3	8 wks	\$23,779.20	\$0.00	\$0.00	\$23,779.20	\$7,086.20	\$10,802.89	\$41,668.
		ANL Controls: Programmer		ED&I	0	8 wks	\$0.00	\$0.00	\$0.00	\$23,779.20	\$0.00	\$0.00	\$0.
491	1.2.3.1.7.4.1	PC Hardware - image anlys.	ANL	ED&I	3	8 wks	\$23,779.20	\$0.00	\$0.00	\$23,779.20	\$7,086.20	\$10,802.89	\$41,668.
, ,	1.2.0.1.7.4.1	ANL Controls: Engineer	71142	ED&I	0	8 wks	\$0.00	\$0.00	\$0.00	\$23,779.20	\$0.00	\$0.00	\$0.
		-											
92	1.2.3.1.7.4.1	Software design - Image	ANL	ED&I	3	16 wks	\$47,558.40	\$0.00	\$0.00	\$47,558.40	\$14,172.40	\$21,605.78	\$83,336
		ANL Controls: Programmer		ED&I	0	16 wks	\$0.00	\$0.00	\$0.00	\$47,558.40	\$0.00	\$0.00	\$0
193	1.2.3.1.7.4.1	Diagnostic laser	ANL	ED&I	2	4 wks	\$11,889.60	\$0.00	\$0.00	\$11,889.60	\$3,543.10	\$3,858.18	\$19,290
		ANL Controls: Engineer		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$11,889.60	\$0.00	\$0.00	\$0
194	1.2.3.1.7.4.1	Software design - Laser	ANL	ED&I	2	4 wks	\$11,889.60	\$0.00	\$0.00	\$11,889.60	\$3,543.10	\$3,858.18	\$19,290
		ANL Controls: Programmer		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$11,889.60	\$0.00	\$0.00	\$0.
195	1.2.3.1.7.4.1	Wire scanner	ANL	ED&I	2	4 wks	\$11,889.60	\$0.00	\$0.00	\$11,889.60	\$3,543.10	\$3,858.18	\$19,290
\dashv		ANL Controls: Engineer		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$11,889.60	\$0.00	\$0.00	\$0
196	1.2.3.1.7.4.1	Software design - Wire scnr	ANL	ED&I	2	4 wks	\$11,889.60	\$0.00	\$0.00	\$11,889.60	\$3,543.10	\$3,858.18	\$19,290
		ANL Controls: Programmer		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$11,889.60	\$0.00	\$0.00	\$0
197	1.2.3.1.7.4.1	Pulse current monitor	ANL	ED&I	2	4 wks	\$11,889.60	\$0.00	\$0.00	\$11,889.60	\$3,543.10	\$3,858.18	\$19,290
		ANL Controls: Engineer		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$11,889.60	\$0.00	\$0.00	\$0
100	1.2.3.1.7.4.1	-	ANL	M&S				\$0.00	\$0.00			\$14,125.00	
198	1.2.3.1.7.4.1	Prototype hardware	ANL		2	0 wks	\$50,000.00			\$50,000.00	\$6,500.00		\$70,625
		ANL M&S Total		M&S	0	50,000	\$0.00	\$0.00	\$0.00	\$50,000.00	\$0.00	\$0.00	\$0
199	1.2.3.1.7.4.1	Software design - PCM	ANL	ED&I	2	4 wks	\$11,889.60	\$0.00	\$0.00	\$11,889.60	\$3,543.10	\$3,858.18	\$19,290
		ANL Controls: Programmer		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$11,889.60	\$0.00	\$0.00	\$0
500	1.2.3.1.7.5	Power Supply Controls	ANL		0	20 wks	\$79,448.00	\$0.00	\$0.00	\$79,448.00	\$20,315.50	\$24,940.88	\$124,704
01	1.2.3.1.7.5.1	Steering coil (H)	ANL	ED&I	2	4 wks	\$11,889.60	\$0.00	\$0.00	\$11,889.60	\$3,543.10	\$3,858.18	\$19,290
\dashv		ANL Controls: Engineer		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$11,889.60	\$0.00	\$0.00	\$0
02	1.2.3.1.7.5.1	Software design - PS (H)	ANL	ED&I	2	2 wks	\$5,944.80	\$0.00	\$0.00	\$5,944.80	\$1,771.55	\$1,929.09	\$9,645
\dashv		ANL Controls: Programmer		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$5,944.80	\$0.00	\$0.00	\$0
503	1.2.3.1.7.5.1	Steering coil (V)	ANL	ED&I	2	4 wks	\$11,889.60	\$0.00	\$0.00	\$11,889.60	\$3,543.10	\$3,858.18	\$19,290
		ANL Controls: Engineer		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$11,889.60	\$0.00	\$0.00	\$0

C	CD1	TEC

ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
2504	1.2.3.1.7.5.1	Software design - PS (V)	ANL	ED&I	2	2 wks	\$5,944.80	\$0.00	\$0.00	\$5,944.80	\$1,771.55	\$1,929.09	\$9,645.4
		ANL Controls: Programmer		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$5,944.80	\$0.00	\$0.00	\$0.00
505	1.2.3.1.7.5.1	Phase correctors	ANL	ED&I	2	4 wks	\$11,889.60	\$0.00	\$0.00	\$11,889.60	\$3,543.10	\$3,858.18	\$19,290.8
		ANL Controls: Engineer		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$11,889.60	\$0.00	\$0.00	\$0.0
506	1.2.3.1.7.5.1	Prototype hardware	ANL	M&S	2	0 wks	\$20,000.00	\$0.00	\$0.00	\$20,000.00	\$2,600.00	\$5,650.00	\$28,250.0
		ANL M&S Total		M&S	0	20,000	\$0.00	\$0.00	\$0.00	\$20,000.00	\$0.00	\$0.00	\$0.0
507	1.2.3.1.7.5.1	Software design - Phase cor.	ANL	ED&I	2	4 wks	\$11,889.60	\$0.00	\$0.00	\$11,889.60	\$3,543.10	\$3,858.18	\$19,290.8
		ANL Controls: Programmer		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$11,889.60	\$0.00	\$0.00	\$0.0
508	1.2.3.1.8	Und. Systems PPS			0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
509	1.2.3.1.9	Und. Meas. System PED			0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
2510	1.2.3.1.9.1	Design	ANL	ED&I	0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
\dashv		ANL Physicist -Scientist		ED&I	0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
2511	1.2.3.1.9.1	Engineering	ANL	ED&I	0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
		ANL Mechanical Engineer		ED&I	0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
2512	1.2.3.1.9.1	Engineering	ANL	ED&I	0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
		ANL Electrical Engineer		ED&I	0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
513	1.2.3.1.9.1	Engineering	ANL	ED&I	0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
_		ANL Controls: Programmer		ED&I	0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
2514	1.2.3.1.9.1	Engineering	ANL	ED&I	0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
		ANL Mech Drafting/Design	, , , ,	ED&I	0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
515	1.2.3.1.9.1		ANL	ED&I	0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
313	1.2.3.1.9.1	Prepare procurements	AINL	ED&I		0 wks					\$0.00	.	
		ANL Project Management			0		\$0.00	\$0.00	\$0.00	\$0.00		\$0.00	\$0.0
2516	1.2.3.1.9.1	Superv. procurements	ANL	ED&I	0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
		ANL Project Management		ED&I	0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
2517	1.2.3.1.10	Undulator Alignment PED			0	121.5 wks	\$277,020.00	\$0.00	\$0.00	\$277,020.00	\$55,404.00	\$83,106.00	\$415,530.00
518	1.2.3.1.10.1	Alignment Project Engineer	ANL	B&H	2	52 wks	\$118,560.00	\$0.00	\$0.00	\$118,560.00	\$23,712.00	\$35,568.00	\$177,840.0
		SLAC Metrology:Eng.& Surveyors		B&H	0	52 wks	\$0.00	\$0.00	\$0.00	\$118,560.00	\$0.00	\$0.00	\$0.00
519	1.2.3.1.10.2	Network Design	ANL	B&H	2	1.5 wks	\$3,420.00	\$0.00	\$0.00	\$3,420.00	\$684.00	\$1,026.00	\$5,130.0
\dashv		SLAC Metrology:Eng.& Surveyors		B&H	0	1.5 wks	\$0.00	\$0.00	\$0.00	\$3,420.00	\$0.00	\$0.00	\$0.00
520	1.2.3.1.10.3	HLS Design	ANL	B&H	2	26 wks	\$59,280.00	\$0.00	\$0.00	\$59,280.00	\$11,856.00	\$17,784.00	\$88,920.0
-		SLAC Metrology:Eng.& Surveyors		B&H	0	26 wks	\$0.00	\$0.00	\$0.00	\$59,280.00	\$0.00	\$0.00	\$0.0
2521	1.2.3.1.10.4	Stretchwire design	ANL	B&H	2	16 wks	\$36,480.00	\$0.00	\$0.00	\$36,480.00	\$7,296.00	\$10,944.00	\$54,720.0
\dashv		SLAC Metrology:Eng.& Surveyors		B&H	0	16 wks	\$0.00	\$0.00	\$0.00	\$36,480.00	\$0.00	\$0.00	\$0.00
522	1.2.3.1.10.5	Data analysis soft. Extension	ANL	B&H	2	26 wks	\$59,280.00	\$0.00	\$0.00	\$59,280.00	\$11,856.00	\$17,784.00	\$88,920.0
		SLAC Metrology:Eng.& Surveyors		B&H	0	26 wks	\$0.00	\$0.00	\$0.00	\$59,280.00	\$0.00	\$0.00	\$0.00

						LCLS_CD1_TEC	, 						
ID 2523	CWBS 1.2.3.1.11	Task Name Undulator Stands	OBS	PHASE	Risk	Units 65 wks	PED (Direct) \$176,000.00	M&S (Direct)	Labor (Direct)	Direct Cost \$176,000.00	Overhead Cost \$35,200.00	Contingency Cost \$51,840.00	Total Cost \$263,040.00
2524	1.2.3.1.11.1	Engineering	ANL	ED&I	3	25 wks	\$84,000.00	\$0.00	\$0.00	\$84,000.00	\$16,800.00	. ,	\$136,080.00
2024	1.2.0.1.11.1	SLAC AD: Mech/Vacuum Engineer	71142	ED&I	0	25 wks	\$0.00	\$0.00	\$0.00	\$84,000.00	\$0.00	\$0.00	\$0.00
2525	400444	-	ANL	ED&I		40 wks	\$92,000.00		\$0.00	\$92.000.00			
2525	1.2.3.1.11.2	-	ANL		1		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	\$0.00	,,,,,	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	\$18,400.00		\$126,960.00
		SLAC Mech Drafting/Design		ED&I	0	40 wks	\$0.00	\$0.00	\$0.00	\$92,000.00	\$0.00	\$0.00	\$0.00
2526	1.2.3.2	Mechanical			0	203 wks	\$0.00	\$18,446,000.00	\$535,803.60	\$18,981,803.60	\$2,502,690.00	\$5,429,156.40	\$26,913,650.00
2527	1.2.3.2.1	Undulator module			0	170 wks	\$0.00	\$16,953,000.00	\$443,347.20	\$17,396,347.20	\$2,328,491.28	\$4,931,209.62	\$24,656,048.10
2528	1.2.3.2.1.1	Undulator	ANL	M&S	2	0 wks	\$0.00	\$15,576,000.00	\$0.00	\$15,576,000.00	\$2,024,880.00	\$4,400,220.00	\$22,001,100.00
		ANL M&S Total		M&S	0	15,576,000	\$0.00	\$0.00	\$0.00	\$15,576,000.00	\$0.00	\$0.00	\$0.00
2529	1.2.3.2.1.1	Remeasure at SLAC	ANL	B&H	2	33 wks	\$0.00	\$0.00	\$67,108.80	\$67,108.80	\$16,240.33	\$20,837.28	\$104,186.41
		ANL Mech. Fab: Assembly Tech		B&H	0	33 wks	\$0.00	\$0.00	\$0.00	\$67,108.80	\$0.00	\$0.00	\$0.00
2530	1.2.3.2.1.1	Remeasure at SLAC	ANL	B&H	2	33 wks	\$0.00	\$0.00	\$67,108.80	\$67,108.80	\$16,240.33	\$20,837.28	\$104,186.41
		ANL Mech. Fab: Assembly Tech		B&H	0	33 wks	\$0.00	\$0.00	\$0.00	\$67,108.80	\$0.00	\$0.00	\$0.00
2531	1.2.3.2.1.2	Measurement assist.	ANL	ED&I	2	12 wks	\$0.00	\$0.00	\$35,668.80	\$35,668.80	\$10,629.30	\$11,574.53	\$57,872.63
		ANL Physicist -Scientist		ED&I	0	12 wks	\$0.00	\$0.00	\$0.00	\$35,668.80	\$0.00	\$0.00	\$0.00
2532	1.2.3.2.1.3	Measurement train	ANL	ED&I	2	8 wks	\$0.00	\$0.00	\$23,779.20	\$23,779.20	\$7,086.20	\$7,716.35	\$38,581.75
		ANL Physicist -Scientist		ED&I	0	8 wks	\$0.00	\$0.00	\$0.00	\$23,779.20	\$0.00	\$0.00	\$0.00
2533	122211	•	ANL	M&S	2		\$0.00						
2533	1.2.3.2.1.4	Movers	AINL			0 wks	,,,,,,	\$1,320,000.00	\$0.00	\$1,320,000.00	\$171,600.00		\$1,864,500.00
		ANL M&S Total		M&S	0	1,320,000	\$0.00	\$0.00	\$0.00	\$1,320,000.00	\$0.00	\$0.00	\$0.00
2534	1.2.3.2.1.5	Procurement supervision	ANL	ED&I	2	36 wks	\$0.00	\$0.00	\$107,006.40	\$107,006.40	\$31,887.91	\$34,723.58	\$173,617.88
		ANL Mechanical Engineer		ED&I	0	36 wks	\$0.00	\$0.00	\$0.00	\$107,006.40	\$0.00	\$0.00	\$0.00
2535	1.2.3.2.1.5	Procurement supervision	ANL	ED&I	2	36 wks	\$0.00	\$0.00	\$107,006.40	\$107,006.40	\$31,887.91	\$34,723.58	\$173,617.88
		ANL Physicist -Scientist		ED&I	0	36 wks	\$0.00	\$0.00	\$0.00	\$107,006.40	\$0.00	\$0.00	\$0.00
2536	1.2.3.2.1.6	Travel to vendor	ANL	M&S	2	0 wks	\$0.00	\$18,000.00	\$0.00	\$18,000.00	\$2,340.00	\$5,085.00	\$25,425.00
		ANL M&S Total		M&S	0	18,000	\$0.00	\$0.00	\$0.00	\$18,000.00	\$0.00	\$0.00	\$0.00
2537	1.2.3.2.1.7	Travel to SLAC	ANL	M&S	2	0 wks	\$0.00	\$39,000.00	\$0.00	\$39,000.00	\$5,070.00	\$11,017.50	\$55,087.50
		ANL M&S Total		M&S	0	39,000	\$0.00	\$0.00	\$0.00	\$39,000.00	\$0.00	\$0.00	\$0.00
2538	1.2.3.2.1.8	Installation assist.	ANL	ED&I	2	8 wks	\$0.00	\$0.00	\$23,779.20	\$23,779.20	\$7,086.20	\$7,716.35	\$38,581.75
		ANL Mechanical Engineer		ED&I	0	8 wks	\$0.00	\$0.00	\$0.00	\$23,779.20	\$0.00	\$0.00	\$0.00
2539	1.2.3.2.1.8	Installation assist.	ANL	ED&I	2	4 wks	\$0.00	\$0.00	\$11,889.60	\$11,889.60	\$3,543.10	\$3,858.18	\$19,290.88
		ANL Physicist - Senior Scientist	, , , ,	ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$11,889.60	\$0.00	\$0.00	\$0.00
2540	1.2.3.2.2	Undulator quadrupole		LDai	0	33 wks	\$0.00	\$825,000.00	\$92,456.40	\$917,456.40	\$134,118.72		\$1,407,693.90
2541	1.2.3.2.2.1	Quadrupole	ANL	M&S	3	0 wks	\$0.00	\$330,000.00	\$92,430.40	\$330,000.00	\$42,900.00		\$503,415.00
∠541	1.2.3.2.2.1	·	ANL										
		ANL M&S Total		M&S	0	330,000	\$0.00	\$0.00	\$0.00	\$330,000.00	\$0.00	\$0.00	\$0.00
2542	1.2.3.2.2.2	Positioners	ANL	M&S	3	0 wks	\$0.00	\$429,000.00	\$0.00	\$429,000.00	\$55,770.00	\$169,669.50	\$654,439.50

ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		ANL M&S Total		M&S	0	429,000	\$0.00	\$0.00	\$0.00	\$429,000.00	\$0.00	\$0.00	\$0.0
543	1.2.3.2.2.3	Other components	ANL	M&S	3	0 wks	\$0.00	\$66,000.00	\$0.00	\$66,000.00	\$8,580.00	\$26,103.00	\$100,683.0
		ANL M&S Total		M&S	0	66,000	\$0.00	\$0.00	\$0.00	\$66,000.00	\$0.00	\$0.00	\$0.0
544	1.2.3.2.2.4	Procurement supervision	ANL	ED&I	2	6 wks	\$0.00	\$0.00	\$17,834.40	\$17,834.40	\$5,314.65	\$5,787.26	\$28,936.
		ANL Mechanical Engineer		ED&I	0	6 wks	\$0.00	\$0.00	\$0.00	\$17,834.40	\$0.00	\$0.00	\$0.
545	1.2.3.2.2.5	Installation supervision	ANL	ED&I	2	4 wks	\$0.00	\$0.00	\$11,889.60	\$11,889.60	\$3,543.10	\$3,858.18	\$19,290.
		ANL Mechanical Engineer		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$11,889.60	\$0.00	\$0.00	\$0.
546	1.2.3.2.2.6	Magnetic measurement	ANL	ED&I	2	17 wks	\$0.00	\$0.00	\$50,530.80	\$50,530.80	\$15,058.18	\$16,397.24	\$81,986
		ANL Physicist -Scientist		ED&I	0	17 wks	\$0.00	\$0.00	\$0.00	\$50,530.80	\$0.00	\$0.00	\$0.
547	1.2.3.2.2.6	Magnetic measurement	ANL	B&H	2	6 wks	\$0.00	\$0.00	\$12,201.60	\$12,201.60	\$2,952.79	\$3,788.60	\$18,942
		ANL Mech. Fab: Assembly Tech		B&H	0	6 wks	\$0.00	\$0.00	\$0.00	\$12,201.60	\$0.00	\$0.00	\$0.
548	1.2.3.2.3	Undulator Hardware Supports			0	0 wks	\$0.00	\$668,000.00	\$0.00	\$668.000.00	\$40,080.00	\$141.828.00	\$849,908.
549	1.2.3.2.3.1	Materials	ANL	M&S	3	0 wks	\$0.00	\$168,000.00	\$0.00	\$168,000.00	\$10,080.00	\$62,328.00	\$240,408
	112.012.011	SLAC M&S Total	/ " "	M&S	0	168,000	\$0.00	\$0.00	\$0.00	\$168,000.00	\$0.00	\$0.00	\$0
550	1.2.3.2.3.2		ANL	M&S	1	0 wks	\$0.00	\$500,000.00	\$0.00	\$500,000.00	\$30,000.00	\$79,500.00	\$609,500
		SLAC M&S Total		M&S	0	500,000	\$0.00	\$0.00	\$0.00	\$500,000.00	\$0.00	\$0.00	\$0
551	1.2.3.3	Vacuum			0	21 wks	\$0.00	\$1,707,500.00	\$62,420.40	\$1,769,920.40	\$240,576.28	\$667,604.17	\$2,678,100.
552	1.2.3.3.1	Undulator vacuum valve			0	0 wks	\$0.00	\$50,000.00	\$0.00	\$50,000.00	\$6,500.00	\$16,159.00	\$72,659.
553	1.2.3.3.1.1	Undulator vacuum valve			0	0 wks	\$0.00	\$50,000.00	\$0.00	\$50,000.00	\$6,500.00	\$16,159.00	\$72,659
554	1.2.3.3.1.1	Gate valve-und. Line entrance	ANL	M&S	1	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$260.00	\$339.00	\$2,599
		ANL M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0
555	1.2.3.3.1.1	Gate valve at the end of undulator line	ANL	M&S	1	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$260.00	\$339.00	\$2,599
		ANL M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0
556	1.2.3.3.1.2	undulator pumpout valve	ANL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
557	1.2.3.3.1.2	valve to isolate roughing system - und. Line entrance	ANL	M&S	3	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$130.00	\$395.50	\$1,525
		ANL M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0
558	1.2.3.3.1.2	valve for iso. of roughing & turbo from - und. Line cell	ANL	M&S	1	0 wks	\$0.00	\$11,000.00	\$0.00	\$11,000.00	\$1,430.00	\$1,864.50	\$14,294
		ANL M&S Total		M&S	0	11,000	\$0.00	\$0.00	\$0.00	\$11,000.00	\$0.00	\$0.00	\$0
559	1.2.3.3.1.2	valve for iso. of roughing & turbo from - und exit section	ANL	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$130.00	\$169.50	\$1,299
		ANL M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0
560	1.2.3.3.1.3		ANL	M&S	3	0 wks	\$0.00	\$33,000.00	\$0.00	\$33,000.00	\$4,290.00		\$50,341
JUU	1.2.3.3.1.3	gate varve with KF liner to isolate each undulator line cell ANL M&S Total	AINL	M&S	0	33,000	\$0.00		\$0.00		\$4,290.00	\$13,051.50	\$50,341
=0.4				M&S				\$0.00		\$33,000.00			
561	1.2.3.3.2	Undulator pump			0	0 wks	\$0.00	\$184,000.00	\$0.00	\$184,000.00	\$23,920.00	\$51,980.00	\$259,900
562	1.2.3.3.2.1	Undulator ion pump	ANL		0	0 wks	\$0.00	\$41,000.00	\$0.00	\$41,000.00	\$5,330.00	\$11,582.50	\$57,912.
563	1.2.3.3.2.1	Ion pump - und. Line entrance	ANL	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000,00	\$260.00	\$565.00	\$2,825.

ID	CWBS	Task Name ANL M&S Total	OBS	PHASE M&S	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
					0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.0
564	1.2.3.3.2.1	Ion pump controller - und. Line entrance	ANL	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$130.00	\$282.50	\$1,412.
		ANL M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.
565	1.2.3.3.2.1	lon pump cable - und. Line entrance	ANL	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$130.00	\$282.50	\$1,412.
		ANL M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.
566	1.2.3.3.2.1	lon pump - und. Line cell	ANL	M&S	2	0 wks	\$0.00	\$11,000.00	\$0.00	\$11,000.00	\$1,430.00	\$3,107.50	\$15,537
		ANL M&S Total		M&S	0	11,000	\$0.00	\$0.00	\$0.00	\$11,000.00	\$0.00	\$0.00	\$0
567	1.2.3.3.2.1	lon pump controller - und. Line cell	ANL	M&S	2	0 wks	\$0.00	\$11,000.00	\$0.00	\$11,000.00	\$1,430.00	\$3,107.50	\$15,537
		ANL M&S Total		M&S	0	11,000	\$0.00	\$0.00	\$0.00	\$11,000.00	\$0.00	\$0.00	\$0
68	1.2.3.3.2.1	lon pump cable - und. Line cell	ANL	M&S	2	0 wks	\$0.00	\$11,000.00	\$0.00	\$11,000.00	\$1,430.00	\$3,107.50	\$15,537
		ANL M&S Total		M&S	0	11,000	\$0.00	\$0.00	\$0.00	\$11,000.00	\$0.00	\$0.00	\$0
69	1.2.3.3.2.1	lon pump - exit of und. Line	ANL	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$260.00	\$565.00	\$2,825
		ANL M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0
70	1.2.3.3.2.1	lon pump controller - exit of und. Line	ANL	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$130.00	\$282.50	\$1,412
		ANL M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0
71	1.2.3.3.2.1	lon pump cable - exit of und. Line	ANL	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$130.00	\$282.50	\$1,412
	1.2.0.5.2.1	ANL M&S Total	71142	M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$(
572	1.2.3.3.2.2	Undulator turbo pump	ANL	IVI&S	0	0 wks	\$0.00	\$117,000.00	\$0.00	\$1,000.00	\$15,210.00	\$33,052.50	\$165,262
		· ·					\$0.00			. ,			\$9,887
573	1.2.3.3.2.2	···	ANL	M&S	2	0 wks	,,,,,,	\$7,000.00	\$0.00	\$7,000.00	\$910.00	\$1,977.50	
		ANL M&S Total		M&S	0	7,000	\$0.00	\$0.00	\$0.00	\$7,000.00	\$0.00	\$0.00	\$0
74	1.2.3.3.2.2	Turbo pump controller - und. Line entrance	ANL	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$130.00	\$282.50	\$1,412
		ANL M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0
575	1.2.3.3.2.2	Cables for turbo pump - und. Line entrance	ANL	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$130.00	\$282.50	\$1,412
		ANL M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0
576	1.2.3.3.2.2	Turbo pump - und. Line cell	ANL	M&S	2	0 wks	\$0.00	\$77,000.00	\$0.00	\$77,000.00	\$10,010.00	\$21,752.50	\$108,762
		ANL M&S Total		M&S	0	77,000	\$0.00	\$0.00	\$0.00	\$77,000.00	\$0.00	\$0.00	\$0
577	1.2.3.3.2.2	Turbo pump controller - und. Line cell	ANL	M&S	2	0 wks	\$0.00	\$11,000.00	\$0.00	\$11,000.00	\$1,430.00	\$3,107.50	\$15,537
		ANL M&S Total		M&S	0	11,000	\$0.00	\$0.00	\$0.00	\$11,000.00	\$0.00	\$0.00	\$0
78	1.2.3.3.2.2	Cables for turbo pump - und. Line cell	ANL	M&S	2	0 wks	\$0.00	\$11,000.00	\$0.00	\$11,000.00	\$1,430.00	\$3,107.50	\$15,537
		ANL M&S Total		M&S	0	11,000	\$0.00	\$0.00	\$0.00	\$11,000.00	\$0.00	\$0.00	\$(
79	1.2.3.3.2.2	Turbo pump - exit of und. Line	ANL	M&S	2	0 wks	\$0.00	\$7,000.00	\$0.00	\$7,000.00	\$910.00	\$1,977.50	\$9,88
		ANL M&S Total		M&S	0	7,000	\$0.00	\$0.00	\$0.00	\$7,000.00	\$0.00	\$0.00	\$0
580	1.2.3.3.2.2		ANL	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$130.00	\$282.50	\$1,41
,,,,,	1.2.0.0.2.2	ANL M&S Total	AINL	M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	
													\$0
581	1.2.3.3.2.2	Cables for turbo pump - exit of und. Line	ANL	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$130.00	\$282.50	\$1,412

ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		ANL M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.0
2582	1.2.3.3.2.3	Undulator roughing pump	ANL		0	0 wks	\$0.00	\$26,000.00	\$0.00	\$26,000.00	\$3,380.00	\$7,345.00	\$36,725.0
2583	1.2.3.3.2.3	Roughing pump - und. Line entrance	ANL	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$260.00	\$565.00	\$2,825.0
		ANL M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.0
2584	1.2.3.3.2.3	Roughing pump - und. Line cell	ANL	M&S	2	0 wks	\$0.00	\$22,000.00	\$0.00	\$22,000.00	\$2,860.00	\$6,215.00	\$31,075.0
		ANL M&S Total		M&S	0	22,000	\$0.00	\$0.00	\$0.00	\$22,000.00	\$0.00	\$0.00	\$0.0
2585	1.2.3.3.2.3	Roughing pump - exit of und. Line	ANL	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$260.00	\$565.00	\$2,825.0
		ANL M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.0
2586	1.2.3.3.3	Undulator vacuum gauge			0	0 wks	\$0.00	\$24,500.00	\$0.00	\$24,500.00	\$3,185.00	\$6,921.25	\$34,606.2
2587	1.2.3.3.3.1	Vacuum gauge - roughing line - und. Line entrance	ANL	M&S	2	0 wks	\$0.00	\$200.00	\$0.00	\$200.00	\$26.00	\$56.50	\$282.5
		ANL M&S Total		M&S	0	200	\$0.00	\$0.00	\$0.00	\$200.00	\$0.00	\$0.00	\$0.0
2588	1.2.3.3.3.1	Vac. Gauge controller - roughing line - und. Line entrance	ANL	M&S	2	0 wks	\$0.00	\$200.00	\$0.00	\$200.00	\$26.00	\$56.50	\$282.5
		ANL M&S Total		M&S	0	200	\$0.00	\$0.00	\$0.00	\$200.00	\$0.00	\$0.00	\$0.0
2589	1.2.3.3.3.1	Vac. Gauge cables - roughing line - und. Line entrance	ANL	M&S	2	0 wks	\$0.00	\$200.00	\$0.00	\$200.00	\$26.00	\$56.50	\$282.5
		ANL M&S Total		M&S	0	200	\$0.00	\$0.00	\$0.00	\$200.00	\$0.00	\$0.00	\$0.0
2590	1.2.3.3.3.1	Vacuum gauge - roughing line - und. Line cell	ANL	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$260.00	\$565.00	\$2,825.0
		ANL M&S Total	ļ	M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.0
2591	1.2.3.3.3.1	Vac. Gauge controller - roughing line - und. Line cell	ANL	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$260.00	\$565.00	\$2,825.0
	112.0.0.0.	ANL M&S Total	7	M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.0
2592	1.2.3.3.3.1		ANL	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$260.00	\$565.00	\$2,825.0
2592	1.2.3.3.3.1	Vac. Gauge cables - roughing line - und. Line cell	AINL	M&S									
		ANL M&S Total			0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.0
2593	1.2.3.3.3.1	Vacuum gauge - electron beampipe - und. Line entrance	ANL	M&S	2	0 wks	\$0.00	\$300.00	\$0.00	\$300.00	\$39.00	\$84.75	\$423.7
		ANL M&S Total		M&S	0	300	\$0.00	\$0.00	\$0.00	\$300.00	\$0.00	\$0.00	\$0.0
2594	1.2.3.3.3.1	Gauge controller - und. Line entrance	ANL	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$130.00	\$282.50	\$1,412.5
		ANL M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.0
2595	1.2.3.3.3.1	Cables for vacuum gauge - und. Line entrance	ANL	M&S	2	0 wks	\$0.00	\$300.00	\$0.00	\$300.00	\$39.00	\$84.75	\$423.7
		ANL M&S Total		M&S	0	300	\$0.00	\$0.00	\$0.00	\$300.00	\$0.00	\$0.00	\$0.0
2596	1.2.3.3.3.1	Vacuum gauge - electron beampipe - und. Line cell	ANL	M&S	2	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$390.00	\$847.50	\$4,237.5
		ANL M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0.0
2597	1.2.3.3.3.1	Gauge controller - und. Line cell	ANL	M&S	2	0 wks	\$0.00	\$11,000.00	\$0.00	\$11,000.00	\$1,430.00	\$3,107.50	\$15,537.5
-		ANL M&S Total		M&S	0	11,000	\$0.00	\$0.00	\$0.00	\$11,000.00	\$0.00	\$0.00	\$0.0
2598	1.2.3.3.3.1	Cables for vacuum gauge - und. Line cell	ANL	M&S	2	0 wks	\$0.00	\$200.00	\$0.00	\$200.00	\$26.00	\$56.50	\$282.5
\dashv		ANL M&S Total		M&S	0	200	\$0.00	\$0.00	\$0.00	\$200.00	\$0.00	\$0.00	\$0.0
2599	1.2.3.3.3.1	Vacuum gauge - roughing line - exit of und. Line	ANL	M&S	2	0 wks	\$0.00	\$300.00	\$0.00	\$300.00	\$39.00	\$84.75	\$423.7
		ANL M&S Total		M&S	0	300	\$0.00	\$0.00	\$0.00	\$300.00	\$0.00	\$0.00	\$0.0

			1			LCL3_CD1_TEC							
ID 2600	CWBS	Task Name	OBS	PHASE M&S	Risk	Units 0 wks	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
2600	1.2.3.3.3.1	Vac. Gauge controller - roughing line - exit of und. Line	ANL		2	U WKS	\$0.00	\$200.00	\$0.00	\$200.00	\$26.00	\$56.50	\$282.5
		ANL M&S Total		M&S	0	200	\$0.00	\$0.00	\$0.00	\$200.00	\$0.00	\$0.00	\$0.0
2601	1.2.3.3.3.1	Vac. Gauge cables - roughing line -exit of und. Line	ANL	M&S	2	0 wks	\$0.00	\$400.00	\$0.00	\$400.00	\$52.00	\$113.00	\$565.0
		ANL M&S Total		M&S	0	400	\$0.00	\$0.00	\$0.00	\$400.00	\$0.00	\$0.00	\$0.0
2602	1.2.3.3.3.1	Vacuum gauge - exit of undulator line	ANL	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$130.00	\$282.50	\$1,412.5
		ANL M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.0
603	1.2.3.3.3.1	Gauge controller - exit of undulator line	ANL	M&S	2	0 wks	\$0.00	\$200.00	\$0.00	\$200.00	\$26.00	\$56.50	\$282.5
		ANL M&S Total		M&S	0	200	\$0.00	\$0.00	\$0.00	\$200.00	\$0.00	\$0.00	\$0.0
2604	1.2.3.3.3.1	Cables for vacuum gauge -exit of undulator line	ANL	M&S	2	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
		ANL M&S Total		M&S	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
2605	1.2.3.3.4	Undulator vacuum pipe			0	0 wks	\$0.00	\$588,000.00	\$0.00	\$588,000.00	\$76,440.00	\$232,554.00	\$896,994.0
606	1.2.3.3.4.1	Transition cone - Und. Line Entrance	ANL	M&S	3	0 wks	\$0.00	\$10,000.00	\$0.00	\$10,000.00	\$1,300.00	\$3,955.00	\$15,255.0
		ANL M&S Total		M&S	0	10,000	\$0.00	\$0.00	\$0.00	\$10,000.00	\$0.00	\$0.00	\$0.0
607	1.2.3.3.4.2	Vacuum chamber - undulator module	ANL	M&S	3	0 wks	\$0.00	\$66,000.00	\$0.00	\$66,000.00	\$8,580.00	\$26,103.00	\$100,683.
		ANL M&S Total		M&S	0	66,000	\$0.00	\$0.00	\$0.00	\$66,000.00	\$0.00	\$0.00	\$0.0
608	1.2.3.3.4.2	flanges to diagnostic cubes - und mod vac chamber	ANL	M&S	3	0 wks	\$0.00	\$7,000.00	\$0.00	\$7,000.00	\$910.00	\$2,768.50	\$10,678.
		ANL M&S Total		M&S	0	7,000	\$0.00	\$0.00	\$0.00	\$7,000.00	\$0.00	\$0.00	\$0.
2609	1.2.3.3.4.2	Bellows at one end of chamber - und mod vac chamber	ANL	M&S	3	0 wks	\$0.00	\$165,000.00	\$0.00	\$165,000.00	\$21,450.00	\$65,257.50	\$251,707.
		ANL M&S Total		M&S	0	165,000	\$0.00	\$0.00	\$0.00	\$165,000.00	\$0.00	\$0.00	\$0.0
2610	1.2.3.3.4.2	Bellows liner - und. Line cell - und mod vac chamber	ANL	M&S	3	0 wks	\$0.00	\$330,000.00	\$0.00	\$330,000.00	\$42,900.00	\$130,515.00	\$503,415.
		ANL M&S Total		M&S	0	330,000	\$0.00	\$0.00	\$0.00	\$330,000.00	\$0.00	\$0.00	\$0.
2611	1.2.3.3.4.3	Transition cone - exit of Und. Line	ANL	M&S	3	0 wks	\$0.00	\$10,000.00	\$0.00	\$10,000.00	\$1,300.00	\$3,955.00	\$15,255.0
		ANL M&S Total		M&S	0	10,000	\$0.00	\$0.00	\$0.00	\$10,000.00	\$0.00	\$0.00	\$0.0
2612	1.2.3.3.5	Inter-undulator chamber			0	21 wks	\$0.00	\$791,000.00	\$62,420.40	\$853,420.40	\$121,431.28	\$332,530.92	\$1,307,382.6
2613	1.2.3.3.5.1	Electron beam diag. Vacuum chamber - und. Entrance line	ANL	M&S	3	0 wks	\$0.00	\$8,000.00	\$0.00	\$8,000.00	\$1,040.00	\$3,164.00	\$12,204.0
		ANL M&S Total		M&S	0	8,000	\$0.00	\$0.00	\$0.00	\$8,000.00	\$0.00	\$0.00	\$0.0
614	1.2.3.3.5.1	Quartz window - und. Entrance line	ANL	M&S	2	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
		ANL M&S Total		M&S	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
615	1.2.3.3.5.1	Retractable mirror cmbr und. Line entrance	ANL	M&S	2	0 wks	\$0.00	\$5,000.00	\$0.00	\$5,000.00	\$650.00	\$1,412.50	\$7,062.
		ANL M&S Total		M&S	0	5,000	\$0.00	\$0.00	\$0.00	\$5,000.00	\$0.00	\$0.00	\$0.
616	1.2.3.3.5.2	Short break vac block - und. Cell	ANL	M&S	3	0 wks	\$0.00	\$440,000.00	\$0.00	\$440,000.00	\$57,200.00	\$174,020.00	\$671,220.
		ANL M&S Total		M&S	0	440,000	\$0.00	\$0.00	\$0.00	\$440,000.00	\$0.00	\$0.00	\$0.
617	1.2.3.3.5.4	421 mm separation vacuum block - und. Line Cell	ANL	M&S	3	0 wks	\$0.00	\$330,000.00	\$0.00	\$330,000.00	\$42,900.00	\$130,515.00	\$503,415.
		ANL M&S Total		M&S	0	330,000	\$0.00	\$0.00	\$0.00	\$330,000.00	\$0.00	\$0.00	\$0.0
2618	1.2.3.3.5.5	Particle beam diag. Vacuum chamber - exit of undulators	ANL	M&S	3	0 wks	\$0.00	\$8,000.00	\$0.00	\$8,000.00	\$1,040.00	\$3,164.00	\$12,204.0

ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
	CWB3	ANL M&S Total	OBS	M&S	0	8,000	\$0.00	\$0.00	\$0.00	\$8,000.00	\$0.00	\$0.00	\$0.0
2619	1.2.3.3.5.5	Vac Engr oversight at SLAC	ANL	ED&I	2	21 wks	\$0.00	\$0.00	\$62,420.40	\$62,420.40	\$18,601.28	\$20,255.42	\$101,277.1
		ANL AD: Mech/Vacuum Engineer		ED&I	0	21 wks	\$0.00	\$0.00	\$0.00	\$62,420.40	\$0.00	\$0.00	\$0.0
620	1.2.3.3.6	Vac. Plumbing, flanges, gaskets, hdwr			0	0 wks	\$0.00	\$70,000.00	\$0.00	\$70,000.00	\$9,100.00	\$27,459.00	\$106,559.0
621	1.2.3.3.6.1	Vac. Plumbing, flanges, gaskets, etc - und. Line entrance	ANL	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$260.00	\$565.00	\$2,825.0
2621	1.2.3.3.6.1		ANL										
		ANL M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.0
622	1.2.3.3.6.1	Vac. Plumbing, flanges, gaskets, etc - und. Line cell	ANL	M&S	3	0 wks	\$0.00	\$66,000.00	\$0.00	\$66,000.00	\$8,580.00	\$26,103.00	\$100,683.
		ANL M&S Total		M&S	0	66,000	\$0.00	\$0.00	\$0.00	\$66,000.00	\$0.00	\$0.00	\$0.
623	1.2.3.3.6.1	Vac. Plumbing, flanges, gaskets, etc - und. Line exit	ANL	M&S	3	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$260.00	\$791.00	\$3,051.
		ANL M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.
624	1.2.3.4	Diagnostic			0	147 wks	\$0.00	\$3,620,000.00	\$367,471.60	\$3,987,471.60	\$571,679.30	\$1,193,083.81	\$5,752,234.
625	1.2.3.4.1	Wire scanner			0	0 wks	\$0.00	\$140,000.00	\$0.00	\$140,000.00	\$18,200.00	\$39,550.00	\$197,750.
626	1.2.3.4.1.1	Wire scanner	ANL	M&S	2	0 wks	\$0.00	\$140,000.00	\$0.00	\$140,000.00	\$18,200.00	\$39,550.00	\$197,750.
\dashv		ANL M&S Total		M&S	0	140,000	\$0.00	\$0.00	\$0.00	\$140,000.00	\$0.00	\$0.00	\$0.
627	1.2.3.4.2	Pulsed current monitor			2	0 wks	\$0.00	\$18,000.00	\$0.00	\$18,000.00	\$2,340.00	\$0.00	\$20,340.
628	1.2.3.4.2.1	Pulsed current monitor	ANL	M&S	0	0 wks	\$0.00	\$18,000.00	\$0.00	\$18,000.00	\$2,340.00	\$0.00	\$20,340.
		ANL M&S Total		M&S	0	18,000	\$0.00	\$0.00	\$0.00	\$18,000.00	\$0.00	\$0.00	\$0.
629	1.2.3.4.3	RFBPM			2	0 wks	\$0.00	\$960,000.00	\$0.00	\$960,000.00	\$124,800.00	\$0.00	\$1,084,800.
630	1.2.3.4.3.1	RFBPM	ANL	M&S	0	0 wks	\$0.00	\$960,000.00	\$0.00	\$960,000.00	\$124,800.00	\$0.00	\$1,084,800
\dashv		ANL M&S Total		M&S	0	960,000	\$0.00	\$0.00	\$0.00	\$960,000.00	\$0.00	\$0.00	\$0.
631	1.2.3.4.4	Cerenkov detector			3	0 wks	\$0.00	\$132,000.00	\$0.00	\$132,000.00	\$17,160.00	\$52,206.00	\$201,366.
632	1.2.3.4.4.1	Cerenkov cetector	ANL	M&S	3	0 wks	\$0.00	\$132,000.00	\$0.00	\$132,000.00	\$17,160.00	\$52,206.00	\$201,366.
		ANL M&S Total		M&S	0	132,000	\$0.00	\$0.00	\$0.00	\$132,000.00	\$0.00	\$0.00	\$0.
633	1.2.3.4.5	Alignment laser			0	0 wks	\$0.00	\$126,000.00	\$0.00	\$126,000.00	\$16,380.00	\$49,833.00	\$192,213.
634	1.2.3.4.5.1	Laser	ANL	M&S	3	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$390.00	\$1,186.50	\$4,576.
034	1.2.3.4.5.1		ANL										
		ANL M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0.
635	1.2.3.4.5.2	Beam expander	ANL	M&S	3	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$390.00	\$1,186.50	\$4,576
		ANL M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0.
636	1.2.3.4.5.3	Deflecting mirror	ANL	M&S	3	0 wks	\$0.00	\$10,000.00	\$0.00	\$10,000.00	\$1,300.00	\$3,955.00	\$15,255
\dashv		ANL M&S Total		M&S	0	10,000	\$0.00	\$0.00	\$0.00	\$10,000.00	\$0.00	\$0.00	\$0.
537	1.2.3.4.5.4	Relay optics	ANL	M&S	3	0 wks	\$0.00	\$110,000.00	\$0.00	\$110,000.00	\$14,300.00	\$43,505.00	\$167,805
\dashv		ANL M&S Total		M&S	0	110,000	\$0.00	\$0.00	\$0.00	\$110,000.00	\$0.00	\$0.00	\$0.
638	1.2.3.4.6	OTR diagnostics			3	0 wks	\$0.00	\$550,000.00	\$0.00	\$550,000.00	\$71,500.00	\$217,525.00	\$839,025.
639	1.2.3.4.6.1	OTR diagnostic	ANL	M&S	3	0 wks	\$0.00	\$550,000.00	\$0.00	\$550,000.00	\$71,500.00	\$217,525.00	\$839,025
		ANL M&S Total		M&S	0	550,000	\$0.00	\$0.00	\$0.00	\$550,000.00	\$0.00	\$0.00	\$0.

ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
2640	1.2.3.4.7	X-ray diagnostics	OBS	TTIAGE	0	147 wks	\$0.00	\$1,694,000.00	\$367,471.60	\$2,061,471.60	\$321,299.30	\$833,969.81	\$3,216,740.71
2641	1.2.3.4.7.1	Diamond xstal	ANL	M&S	3	0 wks	\$0.00	\$55,000.00	\$0.00	\$55,000.00	\$7,150.00	\$21,752.50	\$83,902.50
		ANL M&S Total		M&S	0	55,000	\$0.00	\$0.00	\$0.00	\$55,000.00	\$0.00	\$0.00	\$0.00
2642	1.2.3.4.7.2	Xstal positioner	ANL	M&S	3	0 wks	\$0.00	\$165,000.00	\$0.00	\$165,000.00	\$21,450.00	\$65,257.50	\$251,707.50
		ANL M&S Total		M&S	0	165,000	\$0.00	\$0.00	\$0.00	\$165,000.00	\$0.00	\$0.00	\$0.00
2643	1.2.3.4.7.3	PIN diode 1	ANL	M&S	3	0 wks	\$0.00	\$11,000.00	\$0.00	\$11,000.00	\$1,430.00	\$4,350.50	\$16,780.50
		ANL M&S Total		M&S	0	11,000	\$0.00	\$0.00	\$0.00	\$11,000.00	\$0.00	\$0.00	\$0.00
2644	1.2.3.4.7.4	PIN diode 2	ANL	M&S	3	0 wks	\$0.00	\$11,000.00	\$0.00	\$11,000.00	\$1,430.00	\$4,350.50	\$16,780.50
		ANL M&S Total		M&S	0	11,000	\$0.00	\$0.00	\$0.00	\$11,000.00	\$0.00	\$0.00	\$0.00
2645	1.2.3.4.7.5	PIN diode positioner	ANL	M&S	3	0 wks	\$0.00	\$110,000.00	\$0.00	\$110,000.00	\$14,300.00	\$43,505.00	\$167,805.00
		ANL M&S Total		M&S	0	110,000	\$0.00	\$0.00	\$0.00	\$110,000.00	\$0.00	\$0.00	\$0.00
2646	1.2.3.4.7.6	CCD 1.5 Â	ANL	M&S	3	0 wks	\$0.00	\$264,000.00	\$0.00	\$264,000.00	\$34,320.00	\$104,412.00	\$402,732.00
		ANL M&S Total		M&S	0	264,000	\$0.00	\$0.00	\$0.00	\$264,000.00	\$0.00	\$0.00	\$0.00
2647	1.2.3.4.7.7	CCD 2.9 Å	ANL	M&S	3	0 wks	\$0.00	\$319,000.00	\$0.00	\$319,000.00	\$41,470.00	\$126,164.50	\$486,634.50
		ANL M&S Total		M&S	0	319,000	\$0.00	\$0.00	\$0.00	\$319,000.00	\$0.00	\$0.00	\$0.00
2648	1.2.3.4.7.8	Converter optics	ANL	M&S	3	0 wks	\$0.00	\$88,000.00	\$0.00	\$88,000.00	\$11,440.00	\$34,804.00	\$134,244.00
		ANL M&S Total		M&S	0	88,000	\$0.00	\$0.00	\$0.00	\$88,000.00	\$0.00	\$0.00	\$0.00
2649	1.2.3.4.7.9	Fabricated components	ANL	M&S	3	0 wks	\$0.00	\$660,000.00	\$0.00	\$660,000.00	\$85,800.00	\$261,030.00	\$1,006,830.00
		ANL M&S Total		M&S	0	660,000	\$0.00	\$0.00	\$0.00	\$660,000.00	\$0.00	\$0.00	\$0.00
2650	1.2.3.4.7.10	Assembly	ANL	ED&I	3	33 wks	\$0.00	\$0.00	\$98,089.20	\$98,089.20	\$29,230.58	\$44,561.92	\$171,881.7
		ANL Mechanical Engineer		ED&I	0	33 wks	\$0.00	\$0.00	\$0.00	\$98,089.20	\$0.00	\$0.00	\$0.00
2651	1.2.3.4.7.10	Assembly	ANL	ED&I	3	17 wks	\$0.00	\$0.00	\$50,530.80	\$50,530.80	\$15,058.18	\$22,956.14	\$88,545.12
		ANL Physicist -Scientist		ED&I	0	17 wks	\$0.00	\$0.00	\$0.00	\$50,530.80	\$0.00	\$0.00	\$0.00
2652	1.2.3.4.7.10	Assembly	ANL	B&H	3	74 wks	\$0.00	\$0.00	\$150,486.40	\$150,486.40	\$36,417.71	\$65,416.44	\$252,320.55
		ANL Mech. Fab: Assembly Tech		B&H	0	74 wks	\$0.00	\$0.00	\$0.00	\$150,486.40	\$0.00	\$0.00	\$0.00
2653	1.2.3.4.7.11	Software config.	ANL	ED&I	3	11 wks	\$0.00	\$0.00	\$32,696.40	\$32,696.40	\$9,743.53	\$14,853.97	\$57,293.90
		ANL Controls: Programmer		ED&I	0	11 wks	\$0.00	\$0.00	\$0.00	\$32,696.40	\$0.00	\$0.00	\$0.00
2654	1.2.3.4.7.12	Procurement	ANL	ED&I	3	6 wks	\$0.00	\$0.00	\$17,834.40	\$17,834.40	\$5,314.65	\$8,102.17	\$31,251.22
		ANL Mechanical Engineer		ED&I	0	6 wks	\$0.00	\$0.00	\$0.00	\$17,834.40	\$0.00	\$0.00	\$0.00
2655	1.2.3.4.7.13	Shipping	ANL	M&S	3	0 wks	\$0.00	\$11,000.00	\$0.00	\$11,000.00	\$1,430.00	\$4,350.50	\$16,780.50
		ANL M&S Total		M&S	0	11,000	\$0.00	\$0.00	\$0.00	\$11,000.00	\$0.00	\$0.00	\$0.00
2656	1.2.3.4.7.14	Install. supervision	ANL	ED&I	3	6 wks	\$0.00	\$0.00	\$17,834.40	\$17,834.40	\$5,314.65	\$8,102.17	\$31,251.22
		ANL Mechanical Engineer		ED&I	0	6 wks	\$0.00	\$0.00	\$0.00	\$17,834.40	\$0.00	\$0.00	\$0.00
2657	1.2.3.5	Power Conversion			0	68 wks	\$0.00	\$462,000.00	\$157,060.80	\$619,060.80	\$101,397.80	\$236,866.97	\$957,325.57
2658	1.2.3.5.1	Und. power supplies			0	68 wks	\$0.00	\$462,000.00	\$157,060.80	\$619,060.80	\$101,397.80	\$236,866.97	\$957,325.57

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ID		Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
659	1.2.3.5.1.1	Vert./horiz. steering	ANL	M&S	3	0 wks	\$0.00	\$462,000.00	\$0.00	\$462,000.00	\$60,060.00	\$182,721.00	\$704,781.0
		ANL M&S Total		M&S	0	462,000	\$0.00	\$0.00	\$0.00	\$462,000.00	\$0.00	\$0.00	\$0.
660	1.2.3.5.1.2	Assembly	ANL	ED&I	3	10 wks	\$0.00	\$0.00	\$29,724.00	\$29,724.00	\$8,857.75	\$13,503.61	\$52,085.
\dashv		ANL Mechanical Engineer		ED&I	0	10 wks	\$0.00	\$0.00	\$0.00	\$29,724.00	\$0.00	\$0.00	\$0.
661	1.2.3.5.1.2	Assembly	ANL	B&H	3	33 wks	\$0.00	\$0.00	\$67,108.80	\$67,108.80	\$16,240.33	\$29,172.20	\$112,521
\dashv		ANL Mech. Fab: Assembly Tech		B&H	0	33 wks	\$0.00	\$0.00	\$0.00	\$67,108.80	\$0.00	\$0.00	\$0.
662	1.2.3.5.1.3	Testing	ANL	ED&I	1	10 wks	\$0.00	\$0.00	\$29,724.00	\$29,724.00	\$8,857.75	\$5,787.26	\$44,369
		ANL Mechanical Engineer		ED&I	0	10 wks	\$0.00	\$0.00	\$0.00	\$29,724.00	\$0.00	\$0.00	\$0
63	1.2.3.5.1.3	Testing	ANL	B&H	1	15 wks	\$0.00	\$0.00	\$30,504.00	\$30,504.00	\$7,381.97	\$5,682.90	\$43,568
\dashv		ANL Mech. Fab: Assembly Tech		B&H	0	15 wks	\$0.00	\$0.00	\$0.00	\$30,504.00	\$0.00	\$0.00	\$0
64	1.2.3.6	Magnets			0	33 wks	\$0.00	\$330,000.00	\$92,456.40	\$422,456.40	\$69,768.72	\$164,134.88	\$656,359
65	1.2.3.6.1	Undulator Electromagnets			0	33 wks	\$0.00	\$330,000.00	\$92,456.40	\$422,456.40	\$69,768.72	\$164,134.88	\$656,359
666	1.2.3.6.1.1	Correctors	ANL	M&S	3	0 wks	\$0.00	\$330,000.00	\$0.00	\$330,000.00	\$42,900.00	\$130,515.00	\$503,415
\dashv		ANL M&S Total		M&S	0	330,000	\$0.00	\$0.00	\$0.00	\$330,000.00	\$0.00	\$0.00	\$0
67	1.2.3.6.1.2	Procurement supervision	ANL	ED&I	2	6 wks	\$0.00	\$0.00	\$17,834.40	\$17,834.40	\$5,314.65	\$5,787.26	\$28,936
\dashv		ANL Mechanical Engineer		ED&I	0	6 wks	\$0.00	\$0.00	\$0.00	\$17,834.40	\$0.00	\$0.00	\$0
68	1.2.3.6.1.3	Installation supervision	ANL	ED&I	2	4 wks	\$0.00	\$0.00	\$11,889.60	\$11,889.60	\$3,543.10	\$3,858.18	\$19,290
\dashv		ANL Mechanical Engineer		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$11,889.60	\$0.00	\$0.00	\$0
69	1.2.3.6.1.4	Magnetic measurement	ANL	ED&I	2	17 wks	\$0.00	\$0.00	\$50,530.80	\$50,530.80	\$15,058.18	\$16,397.24	\$81,986
		ANL Physicist -Scientist		ED&I	0	17 wks	\$0.00	\$0.00	\$0.00	\$50,530.80	\$0.00	\$0.00	\$0
70	1.2.3.6.1.4	Magnetic measurement	ANL	B&H	4	6 wks	\$0.00	\$0.00	\$12,201.60	\$12,201.60	\$2,952.79	\$7,577.19	\$22,73
\dashv		ANL Mech. Fab: Assembly Tech		B&H	0	6 wks	\$0.00	\$0.00	\$0.00	\$12,201.60	\$0.00	\$0.00	\$0
571	1.2.3.6.2	Quads			0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
672	1.2.3.6.2.1	Permanent magnet quads	ANL		2	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
573	1.2.3.6.3	Corrector			0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
574	1.2.3.6.3.1	Correctors	ANL		2	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
575	1.2.3.7	Controls			0	305.7 wks	\$0.00	\$1,483,500.00	\$757,912.96	\$2,241,412.96	\$384,347.06	\$713,374.00	\$3,339,134
676	1.2.3.7.1	EPICS Hardware	ANL		0	20 wks	\$0.00	\$299,000.00	\$50,060.00	\$349,060.00	\$52,649.06	\$76,096.23	\$477,805
577	1.2.3.7.1.1	VME Crate	ANL	M&S	1	0 wks	\$0.00	\$80,000.00	\$0.00	\$80,000.00	\$10,400.00	\$13,560.00	\$103,960
\dashv		ANL M&S Total		M&S	0	80,000	\$0.00	\$0.00	\$0.00	\$80,000.00	\$0.00	\$0.00	\$0
78	1.2.3.7.1.1	VME Crate	ANL	B&H	1	2 wks	\$0.00	\$0.00	\$4,067.20	\$4,067.20	\$984.26	\$757.72	\$5,809
		ANL Controls: Technician		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,067.20	\$0.00	\$0.00	\$0
579	1.2.3.7.1.1	VME Processor	ANL	M&S	1	0 wks	\$0.00	\$48,000.00	\$0.00	\$48,000.00	\$6,240.00	\$8,136.00	\$62,376
		ANL M&S Total		M&S	0	48,000	\$0.00	\$0.00	\$0.00	\$48,000.00	\$0.00	\$0.00	\$0
80	1.2.3.7.1.1	VME Processor	ANL	B&H	1	2 wks	\$0.00	\$0.00	\$4,067.20	\$4,067.20	\$984.26	\$757.72	\$5,809

ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		ANL Controls: Technician		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,067.20	\$0.00	\$0.00	\$0.0
2681	1.2.3.7.1.1	VME Transistion h/w	ANL	M&S	1	0 wks	\$0.00	\$32,000.00	\$0.00	\$32,000.00	\$4,160.00	\$5,424.00	\$41,584.0
		ANL M&S Total		M&S	0	32,000	\$0.00	\$0.00	\$0.00	\$32,000.00	\$0.00	\$0.00	\$0.0
682	1.2.3.7.1.1	VME Transistion h/w	ANL	B&H	1	1 wk	\$0.00	\$0.00	\$2,033.60	\$2,033.60	\$492.13	\$378.86	\$2,904.5
		ANL Controls: Technician		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,033.60	\$0.00	\$0.00	\$0.0
2683	1.2.3.7.1.1	VME Fieldbus intfc	ANL	M&S	2	0 wks	\$0.00	\$90,000.00	\$0.00	\$90,000.00	\$11,700.00	\$25,425.00	\$127,125.0
		ANL M&S Total		M&S	0	90,000	\$0.00	\$0.00	\$0.00	\$90,000.00	\$0.00	\$0.00	\$0.0
684	1.2.3.7.1.1	VME Fieldbus intfc	ANL	B&H	2	3 wks	\$0.00	\$0.00	\$6,100.80	\$6,100.80	\$1,476.39	\$1,894.30	\$9,471.4
		ANL Controls: Technician		B&H	0	3 wks	\$0.00	\$0.00	\$0.00	\$6,100.80	\$0.00	\$0.00	\$0.0
685	1.2.3.7.1.1	VME Timing module	ANL	M&S	2	0 wks	\$0.00	\$39,000.00	\$0.00	\$39,000.00	\$5,070.00	\$11,017.50	\$55,087.
		ANL M&S Total		M&S	0	39,000	\$0.00	\$0.00	\$0.00	\$39,000.00	\$0.00	\$0.00	\$0.0
686	1.2.3.7.1.1	VME Timing module	ANL	B&H	2	2 wks	\$0.00	\$0.00	\$4,067.20	\$4,067.20	\$984.26	\$1,262.87	\$6,314.
		ANL Controls: Technician		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,067.20	\$0.00	\$0.00	\$0.0
687	1.2.3.7.1.1	EPICS server	ANL	M&S	1	0 wks	\$0.00	\$10,000.00	\$0.00	\$10,000.00	\$1,300.00	\$1,695.00	\$12,995.
		ANL M&S Total		M&S	0	10,000	\$0.00	\$0.00	\$0.00	\$10,000.00	\$0.00	\$0.00	\$0.
688	1.2.3.7.1.1	EPICS server	ANL	ED&I	1	10 wks	\$0.00	\$0.00	\$29,724.00	\$29,724.00	\$8,857.75	\$5,787.26	\$44,369
		ANL Controls: Programmer		ED&I	0	10 wks	\$0.00	\$0.00	\$0.00	\$29,724.00	\$0.00	\$0.00	\$0.
2689	1.2.3.7.2	Vacuum controls			0	48.5 wks	\$0.00	\$149,000.00	\$126,793.60	\$275,793.60	\$55,047.68	\$88,014.61	\$418,855.9
690	1.2.3.7.2.2	Ion pump controller (IPC)	ANL	M&S	2	0 wks	\$0.00	\$19,000.00	\$0.00	\$19,000.00	\$2,470.00	\$5,367.50	\$26,837.
		ANL M&S Total		M&S	0	19,000	\$0.00	\$0.00	\$0.00	\$19,000.00	\$0.00	\$0.00	\$0.
691	1.2.3.7.2.2		ANL	B&H	2	2 wks	\$0.00	\$0.00	\$4,067.20	\$4,067.20	\$984.26	\$1,262.87	\$6,314
		ANL Controls: Technician		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,067.20	\$0.00	\$0.00	\$0.
692	1.2.3.7.2.2		ANL	ED&I	2	4 wks	\$0.00	\$0.00	\$11,889.60	\$11,889.60	\$3,543.10	\$3,858.18	\$19,290.
	112.017.212	ANL Controls: Programmer	7.1.12	ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$11,889.60	\$0.00	\$0.00	\$0.
693	1.2.3.7.2.2	-	ANL	M&S	2	0 wks	\$0.00	\$36,000.00	\$0.00	\$36,000.00	\$4,680.00		\$50,850.
693	1.2.3.7.2.2		ANL										
		ANL M&S Total		M&S	0	36,000	\$0.00	\$0.00	\$0.00	\$36,000.00	\$0.00	\$0.00	\$0.
694	1.2.3.7.2.2	- ' '	ANL	B&H	2	2 wks	\$0.00	\$0.00	\$4,067.20	\$4,067.20	\$984.26	\$1,262.87	\$6,314
		ANL Controls: Technician		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,067.20	\$0.00	\$0.00	\$0.
695	1.2.3.7.2.2	Software - VGC	ANL	ED&I	2	2 wks	\$0.00	\$0.00	\$5,944.80	\$5,944.80	\$1,771.55	\$1,929.09	\$9,645
		ANL Controls: Programmer		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$5,944.80	\$0.00	\$0.00	\$0.
696	1.2.3.7.2.2	Software - VGC	ANL	B&H	2	2 wks	\$0.00	\$0.00	\$4,067.20	\$4,067.20	\$984.26	\$1,262.87	\$6,314.
		ANL Controls: Technician		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,067.20	\$0.00	\$0.00	\$0.
697	1.2.3.7.2.2	Gate valve controller (VVC)	ANL	M&S	2	0 wks	\$0.00	\$56,000.00	\$0.00	\$56,000.00	\$7,280.00	\$15,820.00	\$79,100.
		ANL M&S Total		M&S	0	56,000	\$0.00	\$0.00	\$0.00	\$56,000.00	\$0.00	\$0.00	\$0.
698	1.2.3.7.2.2	Gate valve controller (VVC)	ANL	B&H	2	8.5 wks	\$0.00	\$0.00	\$17,285.60	\$17,285.60	\$4,183.12	\$5,367.18	\$26,835.

ID	CMBC	Took Name	OBS	PHASE	Risk	Haita	PED (Direct)	M&S (Direct)	Lahar (Direct)	Direct Cost	Outside and Cook	Continuous Cont	Total Cost
טו	CWBS	Task Name ANL Controls: Technician	OBS	B&H	0	Units 8.5 wks		\$0.00	Labor (Direct) \$0.00	Direct Cost \$17,285.60	Overhead Cost \$0.00	Contingency Cost \$0.00	\$0.0
699	1.2.3.7.2.2	Software - VVC	ANL	ED&I	2	16 wks	\$0.00	\$0.00	\$47,558.40	\$47,558.40	\$14,172.40	\$15,432.70	\$77,163.
		ANL Controls: Programmer		ED&I	0	16 wks	\$0.00	\$0.00	\$0.00	\$47,558.40	\$0.00	\$0.00	\$0.
700	1.2.3.7.2.2	Turbo pump controller (TPC)	ANL	M&S	3	0 wks	\$0.00	\$19,000.00	\$0.00	\$19,000.00	\$2,470.00	\$7,514.50	\$28,984.
		ANL M&S Total		M&S	0	19,000	\$0.00	\$0.00	\$0.00	\$19,000.00	\$0.00	\$0.00	\$0.
701	1.2.3.7.2.2	Turbo pump controller (TPC)	ANL	B&H	3	2 wks	\$0.00	\$0.00	\$4,067.20	\$4,067.20	\$984.26	\$1,768.01	\$6,819.
		ANL Controls: Technician		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,067.20	\$0.00	\$0.00	\$0.
702	1.2.3.7.2.2	Software - TPC	ANL	ED&I	2	4 wks	\$0.00	\$0.00	\$11,889.60	\$11,889.60	\$3,543.10	\$3,858.18	\$19,290.
		ANL Controls: Programmer		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$11,889.60	\$0.00	\$0.00	\$0.
703	1.2.3.7.2.2	Roughing pump cntlr (RPC)	ANL	M&S	3	0 wks	\$0.00	\$19,000.00	\$0.00	\$19,000.00	\$2,470.00	\$7,514.50	\$28,984.
		ANL M&S Total		M&S	0	19,000	\$0.00	\$0.00	\$0.00	\$19,000.00	\$0.00	\$0.00	\$0.
2704	1.2.3.7.2.2	Roughing pump cntlr (RPC)	ANL	B&H	3	2 wks	\$0.00	\$0.00	\$4,067.20	\$4,067.20	\$984.26	\$1,768.01	\$6,819.
		ANL Controls: Technician		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,067.20	\$0.00	\$0.00	\$0.0
705	1.2.3.7.2.2	Software - RPC	ANL	ED&I	2	4 wks	\$0.00	\$0.00	\$11,889.60	\$11,889.60	\$3,543.10	\$3,858.18	\$19,290.
		ANL Controls: Programmer		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$11,889.60	\$0.00	\$0.00	\$0.
706	1.2.3.7.3	Motor controls	ANL		0	32 wks	\$0.00	\$470,000.00	\$80,096.00	\$550,096.00	\$83,146.50	\$158,310.63	\$791,553.
707	1.2.3.7.3.1	Strongback motors	ANL	M&S	2	0 wks	\$0.00	\$334,000.00	\$0.00	\$334,000.00	\$43,420.00	\$94,355.00	\$471,775.
		ANL M&S Total		M&S	0	334,000	\$0.00	\$0.00	\$0.00	\$334,000.00	\$0.00	\$0.00	\$0.
2708	1.2.3.7.3.1	Strongback motors	ANL	B&H	2	8 wks	\$0.00	\$0.00	\$16,268.80	\$16,268.80	\$3,937.05	\$5,051.46	\$25,257.
		ANL Controls: Technician		B&H	0	8 wks	\$0.00	\$0.00	\$0.00	\$16,268.80	\$0.00	\$0.00	\$0.
2709	1.2.3.7.3.1	Software - ID Motor	ANL	ED&I	2	8 wks	\$0.00	\$0.00	\$23,779.20	\$23,779.20	\$7,086.20	\$7,716.35	\$38,581.
		ANL Controls: Programmer		ED&I	0	8 wks	\$0.00	\$0.00	\$0.00	\$23,779.20	\$0.00	\$0.00	\$0.
2710	1.2.3.7.3.1	Quadrupole motors	ANL	M&S	2	0 wks	\$0.00	\$136,000.00	\$0.00	\$136,000.00	\$17,680.00	\$38,420.00	\$192,100.
		ANL M&S Total		M&S	0	136,000	\$0.00	\$0.00	\$0.00	\$136,000.00	\$0.00	\$0.00	\$0.0
2711	1.2.3.7.3.1	Quadrupole motors	ANL	B&H	2	8 wks	\$0.00	\$0.00	\$16,268.80	\$16,268.80	\$3,937.05	\$5,051.46	\$25,257.3
		ANL Controls: Technician		B&H	0	8 wks	\$0.00	\$0.00	\$0.00	\$16,268.80	\$0.00	\$0.00	\$0.0
2712	1.2.3.7.3.1	Software - Quad motor	ANL	ED&I	2	8 wks	\$0.00	\$0.00	\$23,779.20	\$23,779.20	\$7,086.20	\$7,716.35	\$38,581.
		ANL Controls: Programmer		ED&I	0	8 wks	\$0.00	\$0.00	\$0.00	\$23,779.20	\$0.00	\$0.00	\$0.0
2713	1.2.3.7.4	Diagnostic controls/DAQ	ANL		0	98 wks	\$0.00	\$510,000.00	\$240,600.00	\$750,600.00	\$131,849.19	\$286,078.84	\$1,168,528.0
714	1.2.3.7.4.1	RFBPM	ANL	M&S	3	0 wks	\$0.00	\$84,000.00	\$0.00	\$84,000.00	\$10,920.00	\$33,222.00	\$128,142.
		ANL M&S Total		M&S	0	84,000	\$0.00	\$0.00	\$0.00	\$84,000.00	\$0.00	\$0.00	\$0.
2715	1.2.3.7.4.1	RFBPM	ANL	B&H	3	4 wks	\$0.00	\$0.00	\$8,134.40	\$8,134.40	\$1,968.52	\$3,536.02	\$13,638.
		ANL Controls: Technician		B&H	0	4 wks	\$0.00	\$0.00	\$0.00	\$8,134.40	\$0.00	\$0.00	\$0.0
2716	1.2.3.7.4.1	Software - RFBPM	ANL	ED&I	2	4 wks	\$0.00	\$0.00	\$11,889.60	\$11,889.60	\$3,543.10	\$3,858.18	\$19,290.
		ANL Controls: Programmer		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$11,889.60	\$0.00	\$0.00	\$0.0

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ID 2717	CWBS 1.2.3.7.4.1	Task Name Cerenkov detector	OBS ANL	PHASE M&S	Risk	Units 0 wks	PED (Direct) \$0.00	M&S (Direct) \$68,000.00	Labor (Direct) \$0.00	Direct Cost \$68,000.00	Overhead Cost \$8,840.00	Contingency Cost \$19,210.00	Total Cost \$96,050.00
2/1/	1.2.3.7.4.1		AINL		-								
		ANL M&S Total		M&S	0	68,000	\$0.00	\$0.00	\$0.00	\$68,000.00	\$0.00	\$0.00	\$0.00
2718	1.2.3.7.4.1	Cerenkov detector	ANL	B&H	2	4 wks	\$0.00	\$0.00	\$8,134.40	\$8,134.40	\$1,968.52	\$2,525.73	\$12,628.66
		ANL Controls: Technician		B&H	0	4 wks	\$0.00	\$0.00	\$0.00	\$8,134.40	\$0.00	\$0.00	\$0.00
2719	1.2.3.7.4.1	Software - cerenkov	ANL	ED&I	2	4 wks	\$0.00	\$0.00	\$11,889.60	\$11,889.60	\$3,543.10	\$3,858.18	\$19,290.88
		ANL Controls: Programmer		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$11,889.60	\$0.00	\$0.00	\$0.00
2720	1.2.3.7.4.1	Optical station	ANL	M&S	3	0 wks	\$0.00	\$120,000.00	\$0.00	\$120,000.00	\$15,600.00	\$47,460.00	\$183,060.00
		ANL M&S Total		M&S	0	120,000	\$0.00	\$0.00	\$0.00	\$120,000.00	\$0.00	\$0.00	\$0.00
2721	1.2.3.7.4.1	Optical station	ANL	B&H	3	16 wks	\$0.00	\$0.00	\$32,537.60	\$32,537.60	\$7,874.10	\$14,144.09	\$54,555.79
		ANL Controls: Technician		B&H	0	16 wks	\$0.00	\$0.00	\$0.00	\$32,537.60	\$0.00	\$0.00	\$0.00
2722	1.2.3.7.4.1	Software - Optical station	ANL	ED&I	3	4 wks	\$0.00	\$0.00	\$11,889.60	\$11,889.60	\$3,543.10	\$5,401.45	\$20,834.15
		ANL Controls: Programmer		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$11,889.60	\$0.00	\$0.00	\$0.00
2723	1.2.3.7.4.1	X-Ray diagnostics	ANL	M&S	3	0 wks	\$0.00	\$144,000.00	\$0.00	\$144,000.00	\$18,720.00	\$56,952.00	\$219,672.00
		ANL M&S Total		M&S	0	144,000	\$0.00	\$0.00	\$0.00	\$144,000.00	\$0.00	\$0.00	\$0.00
2724	1.2.3.7.4.1	X-Ray diagnostics	ANL	B&H	3	16 wks	\$0.00	\$0.00	\$32,537.60	\$32,537.60	\$7,874.10	\$14,144.09	\$54,555.79
		ANL Controls: Technician		B&H	0	16 wks	\$0.00	\$0.00	\$0.00	\$32,537.60	\$0.00	\$0.00	\$0.00
2725	1.2.3.7.4.1	Software - Xray station	ANL	ED&I	3	4 wks	\$0.00	\$0.00	\$11,889.60	\$11,889.60	\$3,543.10	\$5,401.45	\$20,834.15
		ANL Controls: Programmer		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$11,889.60	\$0.00	\$0.00	\$0.00
2726	1.2.3.7.4.1	PC Hardware - image anlys.	ANL	M&S	3	0 wks	\$0.00	\$60,000.00	\$0.00	\$60,000.00	\$7,800.00	\$23,730.00	\$91,530.00
		ANL M&S Total		M&S	0	60,000	\$0.00	\$0.00	\$0.00	\$60,000.00	\$0.00	\$0.00	\$0.00
2727	1.2.3.7.4.1	PC Hardware - image anlys.	ANL	B&H	3	4 wks	\$0.00	\$0.00	\$8,134.40	\$8,134.40	\$1,968.52	\$3,536.02	\$13,638.95
		ANL Controls: Technician		B&H	0	4 wks	\$0.00	\$0.00	\$0.00	\$8,134.40	\$0.00	\$0.00	\$0.00
2728	1.2.3.7.4.1	Software - Image anlys	ANL	ED&I	3	16 wks	\$0.00	\$0.00	\$47,558.40	\$47,558.40	\$14,172.40	\$21,605.78	\$83,336.58
		ANL Controls: Programmer		ED&I	0	16 wks	\$0.00	\$0.00	\$0.00	\$47,558.40	\$0.00	\$0.00	\$0.00
2729	1.2.3.7.4.1	Diagnostic laser	ANL	M&S	2	0 wks	\$0.00	\$8,000.00	\$0.00	\$8,000.00	\$1,040.00	\$2,260.00	\$11,300.00
		ANL M&S Total		M&S	0	8,000	\$0.00	\$0.00	\$0.00	\$8,000.00	\$0.00	\$0.00	\$0.00
2730	1.2.3.7.4.1	Diagnostic laser	ANL	B&H	2	2 wks	\$0.00	\$0.00	\$4,067.20	\$4,067.20	\$984.26	\$1,262.87	\$6,314.33
		ANL Controls: Technician		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,067.20	\$0.00	\$0.00	\$0.00
2731	1.2.3.7.4.1	Software - Diag laser	ANL	ED&I	2	4 wks	\$0.00	\$0.00	\$11,889.60	\$11,889.60	\$3,543.10	\$3,858.18	\$19,290.88
		ANL Controls: Programmer		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$11,889.60	\$0.00	\$0.00	\$0.00
2732	1.2.3.7.4.1	Wire scanner	ANL	M&S	2	0 wks	\$0.00	\$20,000.00	\$0.00	\$20,000.00	\$2,600.00	\$5,650.00	\$28,250.00
		ANL M&S Total		M&S	0	20,000	\$0.00	\$0.00	\$0.00	\$20,000.00	\$0.00	\$0.00	\$0.00
2733	1.2.3.7.4.1	Wire scanner	ANL	B&H	2	4 wks	\$0.00	\$0.00	\$8,134.40	\$8,134.40	\$1,968.52	\$2,525.73	\$12,628.66
		ANL Controls: Technician		B&H	0	4 wks	\$0.00	\$0.00	\$0.00	\$8,134.40	\$0.00	\$0.00	\$0.00
2734	1.2.3.7.4.1	Software - Wire scanner	ANL	ED&I	2	4 wks	\$0.00	\$0.00	\$11,889.60	\$11,889.60	\$3,543.10	\$3,858.18	\$19,290.88

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ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		ANL Controls: Programmer		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$11,889.60	\$0.00	\$0.00	\$0.
735	1.2.3.7.4.1	Pulse current monitor	ANL	M&S	2	0 wks	\$0.00	\$6,000.00	\$0.00	\$6,000.00	\$780.00	\$1,695.00	\$8,475.
		ANL M&S Total		M&S	0	6,000	\$0.00	\$0.00	\$0.00	\$6,000.00	\$0.00	\$0.00	\$0.
736	1.2.3.7.4.1	Pulse current monitor	ANL	B&H	2	4 wks	\$0.00	\$0.00	\$8,134.40	\$8,134.40	\$1,968.52	\$2,525.73	\$12,628
		ANL Controls: Technician		B&H	0	4 wks	\$0.00	\$0.00	\$0.00	\$8,134.40	\$0.00	\$0.00	\$0
737	1.2.3.7.4.1	Software - PCM	ANL	ED&I	2	4 wks	\$0.00	\$0.00	\$11,889.60	\$11,889.60	\$3,543.10	\$3,858.18	\$19,290
		ANL Controls: Programmer		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$11,889.60	\$0.00	\$0.00	\$0
738	1.2.3.7.5	Power Supply Controls	ANL		0	24 wks	\$0.00	\$36,500.00	\$56,316.80	\$92,816.80	\$19,705.30	\$28,130.53	\$140,652
739	1.2.3.7.5.1	Steering coil (H)	ANL	M&S	2	0 wks	\$0.00	\$18,000.00	\$0.00	\$18,000.00	\$2,340.00	\$5,085.00	\$25,425
		ANL M&S Total		M&S	0	18,000	\$0.00	\$0.00	\$0.00	\$18,000.00	\$0.00	\$0.00	\$0
740	1.2.3.7.5.1	Steering coil (H)	ANL	B&H	2	2 wks	\$0.00	\$0.00	\$4,067.20	\$4,067.20	\$984.26	\$1,262.87	\$6,314
		ANL Controls: Technician		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,067.20	\$0.00	\$0.00	\$0
741	1.2.3.7.5.1	Software - PS (H)	ANL	ED&I	2	4 wks	\$0.00	\$0.00	\$11,889.60	\$11,889.60	\$3,543.10	\$3,858.18	\$19,290
		ANL Controls: Programmer		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$11,889.60	\$0.00	\$0.00	\$0
42	1.2.3.7.5.1	Steering coil (V)	ANL	M&S	2	0 wks	\$0.00	\$18,000.00	\$0.00	\$18,000.00	\$2,340.00	\$5,085.00	\$25,425
		ANL M&S Total		M&S	0	18,000	\$0.00	\$0.00	\$0.00	\$18,000.00	\$0.00	\$0.00	\$0
43	1.2.3.7.5.1	Steering coil (V)	ANL	B&H	2	2 wks	\$0.00	\$0.00	\$4,067.20	\$4,067.20	\$984.26	\$1,262.87	\$6,31
		ANL Controls: Technician		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,067.20	\$0.00	\$0.00	\$0
744	1.2.3.7.5.1	Software - PS (V)	ANL	B&H	2	4 wks	\$0.00	\$0.00	\$8,134,40	\$8,134.40	\$1,968.52	\$2,525.73	\$12,628
		ANL Controls: Technician	7.112	B&H	0	4 wks	\$0.00	\$0.00	\$0.00	\$8,134.40	\$0.00	\$0.00	\$12,02
745	1.2.3.7.5.1	Phase correctors	ANL	M&S	2	0 wks	\$0.00	\$500.00	\$0.00	\$500.00	\$65.00	\$141.25	\$70
45	1.2.3.7.5.1		AINL										
		ANL M&S Total		M&S	0	500	\$0.00	\$0.00	\$0.00	\$500.00	\$0.00	\$0.00	\$0
746	1.2.3.7.5.1	Phase correctors	ANL	B&H	2	8 wks	\$0.00	\$0.00	\$16,268.80	\$16,268.80	\$3,937.05		\$25,25
		ANL Controls: Technician		B&H	0	8 wks	\$0.00	\$0.00	\$0.00	\$16,268.80	\$0.00	\$0.00	\$0
47	1.2.3.7.5.1	Software - Phase corrector	ANL	ED&I	2	4 wks	\$0.00	\$0.00	\$11,889.60	\$11,889.60	\$3,543.10	\$3,858.18	\$19,29
		ANL Controls: Programmer		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$11,889.60	\$0.00	\$0.00	\$0
748	1.2.3.7.6	Computers and Crates (3)			0	65.2 wks	\$0.00	\$1,000.00	\$158,957.76	\$159,957.76	\$31,851.55	\$55,266.53	\$247,075
'49	1.2.3.7.6.1	Software support for integrating ANL Control Systems	SLAC	ED&I	3	25 wks	\$0.00	\$0.00	\$63,160.00	\$63,160.00	\$12,632.00	\$26,527.20	\$102,31
		SLAC Controls: Programmer		ED&I	0	25 wks	\$0.00	\$0.00	\$0.00	\$63,160.00	\$0.00	\$0.00	\$
'50	1.2.3.7.6.2	CAMAC Crates (Refurb), Control & Support Modules	SLAC	ED&I	2	8 wks	\$0.00	\$0.00	\$16,000.00	\$16,000.00	\$3,200.00	\$4,800.00	\$24,00
		SLAC Controls: Coordinator Assoc.		ED&I	0	8 wks	\$0.00	\$0.00	\$0.00	\$16,000.00	\$0.00	\$0.00	\$6
751	1.2.3.7.6.3	VME Crates, IOC's & Interface Chassis (0)	SLAC	ED&I	2	30 wks	\$0.00	\$0.00	\$75,792.00	\$75,792.00	\$15,158.40	\$22,737.60	\$113,688
		SLAC Controls: Programmer		ED&I	0	30 wks	\$0.00	\$0.00	\$0.00	\$75,792.00	\$0.00	\$0.00	\$0
752	1.2.3.7.6.4	Install VME Crates, IOC's & Interface Chassis	SLAC	B&H	2	1.6 wks	\$0.00	\$0.00	\$2,805.76	\$2,805.76	\$561.15	\$841.73	\$4,20
		SLAC Controls: Technician		B&H	0	1.6 wks	\$0.00	\$0.00	\$0.00	\$2,805.76	\$0.00	\$0.00	\$0

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ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
2753	1.2.3.7.6.5	Cableplant	SLAC	M&S	0	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$0.00	\$1,060.0
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.0
754	1.2.3.7.6.6	Install Cableplant	SLAC	B&H	2	0.6 wks	\$0.00	\$0.00	\$1,200.00	\$1,200.00	\$240.00	\$360.00	\$1,800.0
-		SLACL PCD:Inst-Cabling-Elec Fab		B&H	0	0.6 wks	\$0.00	\$0.00	\$0.00	\$1,200.00	\$0.00	\$0.00	\$0.0
755	1.2.3.7.7	TIMING DISTRIBUTION SYSTEM-Undulator			0	18 wks	\$0.00	\$18,000.00	\$45,088.80	\$63,088.80	\$10,097.76	\$21,476.64	\$94,663.2
756	1.2.3.7.7.1	Distributed Timing Hardware	SLAC	M&S	4	0 wks	\$0.00	\$12,000.00	\$0.00	\$12,000.00	\$720.00	\$6,360.00	\$19,080.0
-		SLAC M&S Total		M&S	0	12,000	\$0.00	\$0.00	\$0.00	\$12,000.00	\$0.00	\$0.00	\$0.0
757	1.2.3.7.7.2	Install Timing System Hardware	SLAC	B&H	2	0.5 wks	\$0.00	\$0.00	\$876.80	\$876.80	\$175.36	\$263.04	\$1,315.2
\dashv		SLAC Controls: Technician		B&H	0	0.5 wks	\$0.00	\$0.00	\$0.00	\$876.80	\$0.00	\$0.00	\$0.0
758	1.2.3.7.7.3	Timing System Heliax Cableplant	SLAC	M&S	2	0 wks	\$0.00	\$6,000.00	\$0.00	\$6,000.00	\$360.00	\$1,590.00	\$7,950.0
		SLAC M&S Total		M&S	0	6,000	\$0.00	\$0.00	\$0.00	\$6,000.00	\$0.00	\$0.00	\$0.0
759	1.2.3.7.7.4	Timing Software support of ANL Systems	SLAC	ED&I	2	17.5 wks	\$0.00	\$0.00	\$44,212.00	\$44,212.00	\$8,842.40	\$13,263.60	\$66,318.0
\neg		SLAC Controls: Programmer		ED&I	0	17.5 wks	\$0.00	\$0.00	\$0.00	\$44,212.00	\$0.00	\$0.00	\$0.0
760	1.2.3.8	PPS			0	32.75 wks	\$0.00	\$0.00	\$84,191.68	\$84,191.68	\$16,838.34	\$36,109.98	\$137,139.9
761	1.2.3.8.1	PPS	SLAC		0	21.75 wks	\$0.00	\$0.00	\$55,561.28	\$55,561.28	\$11,112.26	\$21,331.74	\$88,005.2
762	1.2.3.8.1.1	PPS Hardware Engineer	SLAC	ED&I	3	11.9 wks	\$0.00	\$0.00	\$35,071.68	\$35,071.68	\$7,014.34	\$14,730.11	\$56,816.1
\neg		SLAC Controls: Engineer		ED&I	0	11.9 wks	\$0.00	\$0.00	\$0.00	\$35,071.68	\$0.00	\$0.00	\$0.0
763	1.2.3.8.1.1	PPS Coordination & Documentation	SLAC	ED&I	2	8.35 wks	\$0.00	\$0.00	\$16,700.00	\$16,700.00	\$3,340.00	\$5,010.00	\$25,050.0
		SLAC Controls: Coordinator Assoc.		ED&I	0	8.35 wks	\$0.00	\$0.00	\$0.00	\$16,700.00	\$0.00	\$0.00	\$0.0
764	1.2.3.8.1.1	PPS Software Development	SLAC	ED&I	3	1.5 wks	\$0.00	\$0.00	\$3,789.60	\$3,789.60	\$757.92	\$1,591.63	\$6,139.1
		SLAC Controls: Programmer		ED&I	0	1.5 wks	\$0.00	\$0.00	\$0.00	\$3,789.60	\$0.00	\$0.00	\$0.0
765	1.2.3.8.2	BCS	SLAC		0	5.5 wks	\$0.00	\$0.00	\$14,315.20	\$14,315.20	\$2,863.04	\$7,389.12	\$24,567.3
766	1.2.3.8.2.1	BCS Hardware Engineer	SLAC	ED&I	4	3.5 wks	\$0.00	\$0.00	\$10,315.20	\$10,315.20	\$2,063.04	\$6,189.12	\$18,567.3
		SLAC Controls: Engineer		ED&I	0	3.5 wks	\$0.00	\$0.00	\$0.00	\$10,315.20	\$0.00	\$0.00	\$0.0
767	1.2.3.8.2.1	BCS Coordination & Documentation	SLAC	ED&I	2	2 wks	\$0.00	\$0.00	\$4,000.00	\$4,000.00	\$800.00	\$1,200.00	\$6,000.0
		SLAC Controls: Coordinator Assoc.		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$0.0
768	1.2.3.8.3	MPS	SLAC		0	5.5 wks	\$0.00	\$0.00	\$14,315.20	\$14,315.20	\$2,863.04	\$7,389.12	\$24,567.3
769	1.2.3.8.3.1	MPS Hardware Engineer	SLAC	ED&I	4	3.5 wks	\$0.00	\$0.00	\$10,315.20	\$10,315.20	\$2,063.04	\$6,189.12	\$18,567.3
		SLAC Controls: Engineer		ED&I	0	3.5 wks	\$0.00	\$0.00	\$0.00	\$10,315.20	\$0.00	\$0.00	\$0.0
770	1.2.3.8.3.1	MPS Coordination & Documentation	SLAC	ED&I	2	2 wks	\$0.00	\$0.00	\$4,000.00	\$4,000.00	\$800.00	\$1,200.00	\$6,000.0
		SLAC Controls: Coordinator Assoc.		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$0.0
771	1.2.3.9	Undulator Measurement System			0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
772	1.2.3.9.1	Und. Meas. System	ANL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
773	1.2.3.9.1.1	Granite bench	ANL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
774	1.2.3.9.1.1	Slide assembly	ANL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0

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ID		Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
775	1.2.3.9.1.1	Trolley assembly	ANL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
776	1.2.3.9.1.1	Rotary coil assembly	ANL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
777	1.2.3.9.1.1	Hall probes	ANL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
778	1.2.3.9.1.1	Integrator	ANL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
779	1.2.3.9.1.1	Motion controls	ANL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
780	1.2.3.9.1.1	Equipment rack	ANL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
781	1.2.3.9.1.1	Moving coils	ANL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
782	1.2.3.9.1.1	Pulsed wire system	ANL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
783	1.2.3.9.1.1	Air system	ANL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
784	1.2.3.9.1.1	Computer	ANL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
785	1.2.3.9.1.1	Cabling	ANL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
786	1.2.3.9.1.1	Assembly	ANL	ED&I	0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
		ANL Physicist -Scientist		ED&I	0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
787	1.2.3.9.1.1	Assembly	ANL	ED&I	0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
		ANL Electrical Engineer		ED&I	0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
88	1.2.3.9.1.1	Assembly	ANL	ED&I	0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
		ANL Mechanical Engineer		ED&I	0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
'89	1.2.3.9.1.1	Assembly	ANL	B&H	0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
		ANL Mech. Fab: Assembly Tech		B&H	0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
790	1.2.3.9.1.1	Assembly	ANL	ED&I	0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
90	1.2.3.9.1.1	•	AINL				\$0.00		\$0.00		\$0.00	\$0.00	
		ANL Controls: Programmer		ED&I	0	0 wks		\$0.00		\$0.00			\$0
791	1.2.3.9.1.1	Crating & shipping	ANL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
792	1.2.3.9.1.1	Install. supervision	ANL	ED&I	0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
		ANL Mechanical Engineer		ED&I	0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
'93	1.2.3.9.1.1	Install. supervision	ANL	ED&I	0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
		ANL Electrical Engineer		ED&I	0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
794	1.2.3.9.1.1	Install. supervision	ANL	ED&I	0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
		ANL Physicist -Scientist		ED&I	0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
795	1.2.4	Installation & Allignment			0	1,808.74 wks	\$0.00	\$1,386,000.00	\$4,031,866.24	\$5,417,866.24	\$889,533.25	\$1,947,083.57	\$8,254,483
96	1.2.4.1	Injector Installation			0	160.3 wks	\$0.00	\$0.00	\$363,279.60	\$363,279.60	\$72,655.92	\$143,172.89	\$579,108
97	1.2.4.1.1	Reserved			0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
798	1.2.4.1.2	Gun & Load Lock Installation			0	6 wks	\$0.00	\$0.00	\$11,992.80	\$11,992.80	\$2,398.56	\$3,597.84	\$17,989
'99	1.2.4.1.2.1	Gun	SLAC	B&H	2	2 wks	\$0.00	\$0.00	\$3,997.60	\$3,997.60	\$799.52	\$1,199.28	\$5,996
		SLAC Mech. Fab: Assembly Tech		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$3,997.60	\$0.00	\$0.00	\$0
300	1.2.4.1.2.1	Loadlock	SLAC	B&H	2	2 wks	\$0.00	\$0.00	\$3,997.60	\$3,997.60	\$799.52	\$1,199.28	\$5,996

ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		SLAC Mech. Fab: Assembly Tech		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$3,997.60	\$0.00	\$0.00	\$0.0
801	1.2.4.1.2.1	Diagnostics	SLAC	B&H	2	2 wks	\$0.00	\$0.00	\$3,997.60	\$3,997.60	\$799.52	\$1,199.28	\$5,996.4
		SLAC Mech. Fab: Assembly Tech		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$3,997.60	\$0.00	\$0.00	\$0.0
802	1.2.4.1.3	L0 Installation			0	4 wks	\$0.00	\$0.00	\$7,995.20	\$7,995.20	\$1,599.04	\$2,398.56	\$11,992.8
803	1.2.4.1.3.1	RF structures	SLAC	B&H	2	2 wks	\$0.00	\$0.00	\$3,997.60	\$3,997.60	\$799.52	\$1,199.28	\$5,996.
		SLAC Mech. Fab: Assembly Tech		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$3,997.60	\$0.00	\$0.00	\$0.
304	1.2.4.1.3.1	Diagnostics	SLAC	B&H	2	2 wks	\$0.00	\$0.00	\$3,997.60	\$3,997.60	\$799.52	\$1,199.28	\$5,996
-		SLAC Mech. Fab: Assembly Tech		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$3,997.60	\$0.00	\$0.00	\$0.
805	1.2.4.1.4	MS Installation			0	3 wks	\$0.00	\$0.00	\$5,996.40	\$5,996.40	\$1,199.28	\$1,798.92	\$8,994.
806	1.2.4.1.4.1	RF structures	SLAC	B&H	2	1 wk	\$0.00	\$0.00	\$1,998.80	\$1,998.80	\$399.76	\$599.64	\$2,998
		SLAC Mech. Fab: Assembly Tech		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$1,998.80	\$0.00	\$0.00	\$0.
307	1.2.4.1.4.1	Diagnostics	SLAC	B&H	2	2 wks	\$0.00	\$0.00	\$3,997.60	\$3,997.60	\$799.52	\$1,199.28	\$5,996
_		SLAC Mech. Fab: Assembly Tech		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$3,997.60	\$0.00	\$0.00	\$0
308	1.2.4.1.5	Straightahead Installation			0	1 wk	\$0.00	\$0.00	\$1,998.80	\$1,998.80	\$399.76	\$599.64	\$2,998
309	1.2.4.1.5.1	Diagnostics	SLAC	B&H	2	1 wk	\$0.00	\$0.00	\$1,998.80	\$1,998.80	\$399.76	\$599.64	\$2,998
,05	1.2.4.1.0.1	SLAC Mech. Fab: Assembly Tech	OLAG	B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$1,998.80	\$0.00	\$0.00	\$2,550
	10110	•	SLAC	БОЛ			\$0.00						
310	1.2.4.1.6				0	0 wks		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
811	1.2.4.1.7	Reserved	SLAC		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
812	1.2.4.1.8	Reserved	SLAC		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
813	1.2.4.1.9	Protection System Installation			0	146.3 wks	\$0.00	\$0.00	\$335,296.40	\$335,296.40	\$67,059.28	\$134,777.93	\$537,133
814	1.2.4.1.10	INJECTOR CONTROLS INSTALLATION			0	19.8 wks	\$0.00	\$0.00	\$53,856.00	\$53,856.00	\$10,771.20	\$16,572.96	\$81,200
815	1.2.4.1.10.1	Computers and Crates (6)	SLAC		0	2.6 wks	\$0.00	\$0.00	\$7,072.00	\$7,072.00	\$1,414.40	\$2,121.60	\$10,608
316	1.2.4.1.10.1	Install Cableplant	SLAC	B&H	2	0.6 wks	\$0.00	\$0.00	\$1,632.00	\$1,632.00	\$326.40	\$489.60	\$2,448
		SLAC T&M Crafts - Union Electrician		B&H	0	0.6 wks	\$0.00	\$0.00	\$0.00	\$1,632.00	\$0.00	\$0.00	\$0
817	1.2.4.1.10.1	Install Multibus Cableplant	SLAC	B&H	2	1 wk	\$0.00	\$0.00	\$2,720.00	\$2,720.00	\$544.00	\$816.00	\$4,080
		SLAC T&M Crafts - Union Electrician		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,720.00	\$0.00	\$0.00	\$0
818	1.2.4.1.10.1	Install CAMAC System Cableplant	SLAC	B&H	2	1 wk	\$0.00	\$0.00	\$2,720.00	\$2,720.00	\$544.00	\$816.00	\$4,080
-		SLAC T&M Crafts - Union Electrician		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,720.00	\$0.00	\$0.00	\$0
819	1.2.4.1.10.2	TIMING DISTRIBUTION SYSTEM-CAMAC	SLAC		0	3 wks	\$0.00	\$0.00	\$8,160.00	\$8,160.00	\$1,632.00	\$2,448.00	\$12,240
320	1.2.4.1.10.2	Install Timing System Heliax Cableplant	SLAC	B&H	2	3 wks	\$0.00	\$0.00	\$8,160.00	\$8,160.00	\$1,632.00	\$2,448.00	\$12,240
-		SLAC T&M Crafts - Union Electrician		B&H	0	3 wks	\$0.00	\$0.00	\$0.00	\$8,160.00	\$0.00	\$0.00	\$0
321	1.2.4.1.10.3	LCLS VACUUM SYSTEM (11)	SLAC		0	0.6 wks	\$0.00	\$0.00	\$1,632.00	\$1,632.00	\$326.40	\$685.44	\$2,643
822	1.2.4.1.10.3		SLAC	B&H	3	0.2 wks	\$0.00	\$0.00	\$544.00	\$544.00	\$108.80	\$228.48	\$881
		SLAC T&M Crafts - Union Electrician		B&H	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$544.00	\$0.00	\$0.00	\$0
							\$0.00	\$0.00	\$544.00	\$544.00	\$108.80		-

101	0	CD4	TEC
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ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		SLAC T&M Crafts - Union Electrician		B&H	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$544.00	\$0.00	\$0.00	\$0.0
824	1.2.4.1.10.3	Valve Controller J-Box Cable (20')	SLAC	B&H	3	0.2 wks	\$0.00	\$0.00	\$544.00	\$544.00	\$108.80	\$228.48	\$881.2
		SLAC T&M Crafts - Union Electrician		B&H	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$544.00	\$0.00	\$0.00	\$0.0
825	1.2.4.1.10.4	TUNE-UP DUMPS (1)	SLAC		0	0.2 wks	\$0.00	\$0.00	\$544.00	\$544.00	\$108.80	\$97.92	\$750.7
2826	1.2.4.1.10.4	Install Tune Dump Cableplant	SLAC	B&H	1	0.2 wks	\$0.00	\$0.00	\$544.00	\$544.00	\$108.80	\$97.92	\$750.7
		SLAC T&M Crafts - Union Electrician		B&H	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$544.00	\$0.00	\$0.00	\$0.0
827	1.2.4.1.10.5	WIRE SCANNERS (4)	SLAC		0	5.4 wks	\$0.00	\$0.00	\$14,688.00	\$14,688.00	\$2,937.60	\$2,643.84	\$20,269.4
828	1.2.4.1.10.5	RG58 to PMT 250'	SLAC	B&H	1	2.4 wks	\$0.00	\$0.00	\$6,528.00	\$6,528.00	\$1,305.60	\$1,175.04	\$9,008.0
		SLAC T&M Crafts - Union Electrician		B&H	0	2.4 wks	\$0.00	\$0.00	\$0.00	\$6,528.00	\$0.00	\$0.00	\$0.0
829	1.2.4.1.10.5	MULTI-COND (4PR) DATRONIC TO LVDT 250'	SLAC	B&H	1	3 wks	\$0.00	\$0.00	\$8,160.00	\$8,160.00	\$1,632.00	\$1,468.80	\$11,260.
		SLAC T&M Crafts - Union Electrician		B&H	0	3 wks	\$0.00	\$0.00	\$0.00	\$8,160.00	\$0.00	\$0.00	\$0.0
830	1.2.4.1.10.6	BEAM POSITION MONITORS (13)	SLAC		0	1.43 wks	\$0.00	\$0.00	\$3,889.60	\$3,889.60	\$777.92	\$2,333.76	\$7,001.2
831	1.2.4.1.10.6.6	RG223 (4 ea BPM, timed and matched, 200')	SLAC	B&H	4	1.43 wks	\$0.00	\$0.00	\$3,889.60	\$3,889.60	\$777.92	\$2,333.76	\$7,001.
		SLAC T&M Crafts - Union Electrician		B&H	0	1.43 wks	\$0.00	\$0.00	\$0.00	\$3,889.60	\$0.00	\$0.00	\$0.0
832	1.2.4.1.10.7	TOROIDS (6)	SLAC		0	0.48 wks	\$0.00	\$0.00	\$1,305.60	\$1,305.60	\$261.12	\$235.01	\$1,801.7
833	1.2.4.1.10.7	RG22, TCM to TCM PreAmp (2)	SLAC	B&H	1	0.16 wks	\$0.00	\$0.00	\$435.20	\$435.20	\$87.04		\$600.
	1.2.4.1.10.7	SLAC T&M Crafts - Union Electrician	GEAG	B&H	0	0.16 wks	\$0.00	\$0.00	\$0.00	\$435.20	\$0.00		\$0.
834	1.2.4.1.10.7		SLAC	B&H		0.16 wks	\$0.00	\$0.00	\$435.20	\$435.20	\$87.04		\$600.
034	1.2.4.1.10.7	SLAC T&M Crafts - Union Electrician	SLAC	B&H	0	0.16 wks	\$0.00	\$0.00	\$0.00	\$435.20	\$0.00		\$0.
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835	1.2.4.1.10.7	, , , , , , , , , , , , , , , , , , , ,	SLAC	B&H	1	0.16 wks	\$0.00	\$0.00	\$435.20	\$435.20	\$87.04		\$600.
		SLAC T&M Crafts - Union Electrician		B&H	0	0.16 wks	\$0.00	\$0.00	\$0.00	\$435.20	\$0.00		\$0.
836	1.2.4.1.10.8	PROFILE MONITORS (7) / COLLIMATOR (1)	SLAC		0	2.18 wks	\$0.00	\$0.00	\$5,929.60	\$5,929.60	\$1,185.92		\$8,352.
837	1.2.4.1.10.8	RG59, coax-video (7)	SLAC	B&H	1	0.64 wks	\$0.00	\$0.00	\$1,740.80	\$1,740.80	\$348.16	\$313.34	\$2,402.
		SLAC T&M Crafts - Union Electrician		B&H	0	0.64 wks	\$0.00	\$0.00	\$0.00	\$1,740.80	\$0.00	\$0.00	\$0.
838	1.2.4.1.10.8	Multi-conductor (21C/16GA-CONT&STAT) (7)	SLAC	B&H	1	0.64 wks	\$0.00	\$0.00	\$1,740.80	\$1,740.80	\$348.16	\$313.34	\$2,402.
		SLAC T&M Crafts - Union Electrician		B&H	0	0.64 wks	\$0.00	\$0.00	\$0.00	\$1,740.80	\$0.00	\$0.00	\$0.
839	1.2.4.1.10.8	Multi-conductor (3C/16GA-AC POWER) (7)	SLAC	B&H	1	0.64 wks	\$0.00	\$0.00	\$1,740.80	\$1,740.80	\$348.16	\$313.34	\$2,402.
		SLAC T&M Crafts - Union Electrician		B&H	0	0.64 wks	\$0.00	\$0.00	\$0.00	\$1,740.80	\$0.00	\$0.00	\$0.
840	1.2.4.1.10.8.1	Collimator (1)	SLAC		0	0.26 wks	\$0.00	\$0.00	\$707.20	\$707.20	\$141.44	\$297.02	\$1,145.
841	1.2.4.1.10.8.1	LVDT UNIT (2)	SLAC	B&H	3	0.02 wks	\$0.00	\$0.00	\$54.40	\$54.40	\$10.88	\$22.85	\$88.
		SLAC T&M Crafts - Union		B&H	0	0.02 wks	\$0.00	\$0.00	\$0.00	\$54.40	\$0.00	\$0.00	\$0.
842	1.2.4.1.10.8.1	Electrician MULTI-COND (4PR) DATRONIC TO LVDT	SLAC	B&H	3	0.24 wks	\$0.00	\$0.00	\$652.80	\$652.80	\$130.56	\$274.18	\$1,057.
		SLAC T&M Crafts - Union		B&H	0	0.24 wks	\$0.00	\$0.00	\$0.00	\$652.80	\$0.00	\$0.00	\$0.
843	1.2.4.1.10.9	Electrician E-O Diagnostic	SLAC		0	0.2 wks	\$0.00	\$0.00	\$544.00	\$544.00	\$108.80	\$97.92	\$750.
844	1.2.4.1.10.9	•	SLAC	B&H		0.2 wks	\$0.00	\$0.00	\$544.00	\$544.00	\$108.80		\$750.

						LCLS_CD1_TEC							
ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost		Contingency Cost	Total Cost
		SLAC T&M Crafts - Union Electrician		B&H	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$544.00	\$0.00	\$0.00	\$0.0
2845	1.2.4.1.10.10	RF Controls	SLAC		0	2.5 wks	\$0.00	\$0.00	\$6,800.00	\$6,800.00	\$1,360.00	\$4,080.00	\$12,240.0
2846	1.2.4.1.10.10	Sector 20	SLAC		0	2.5 wks	\$0.00	\$0.00	\$6,800.00	\$6,800.00	\$1,360.00	\$4,080.00	\$12,240.0
2847	1.2.4.1.10.10	Cableplant Phase & Amp., BLM, Temp.	SLAC	B&H	4	2.5 wks	\$0.00	\$0.00	\$6,800.00	\$6,800.00	\$1,360.00	\$4,080.00	\$12,240.0
		SLAC T&M Crafts - Union Electrician		B&H	0	2.5 wks	\$0.00	\$0.00	\$0.00	\$6,800.00	\$0.00	\$0.00	\$0.0
2848	1.2.4.1.10.11	Gun & Injector Systems	SLAC		0	0.6 wks	\$0.00	\$0.00	\$1,632.00	\$1,632.00	\$326.40	\$293.76	\$2,252.1
2849	1.2.4.1.10.11	CAMAC Module, SAM (1)	SLAC	B&H	1	0.2 wks	\$0.00	\$0.00	\$544.00	\$544.00	\$108.80	\$97.92	\$750.
		SLAC T&M Crafts - Union Electrician		B&H	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$544.00	\$0.00	\$0.00	\$0.0
2850	1.2.4.1.10.11	CAMAC Module, IDOM (1)	SLAC	B&H	1	0.2 wks	\$0.00	\$0.00	\$544.00	\$544.00	\$108.80	\$97.92	\$750.
		SLAC T&M Crafts - Union Electrician		B&H	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$544.00	\$0.00	\$0.00	\$0.0
2851	1.2.4.1.10.11	CAMAC cable ID0M (1)	SLAC	B&H	1	0.2 wks	\$0.00	\$0.00	\$544.00	\$544.00	\$108.80	\$97.92	\$750.7
		SLAC T&M Crafts - Union Electrician		B&H	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$544.00	\$0.00	\$0.00	\$0.0
2852	1.2.4.1.10.12	Alignment Laser Systems	SLAC		0	0.61 wks	\$0.00	\$0.00	\$1,659.20	\$1,659.20	\$331.84	\$298.66	\$2,289.7
2853	1.2.4.1.10.12	MULTI-COND (4PR)	SLAC	B&H	1	0.61 wks	\$0.00	\$0.00	\$1,659.20	\$1,659.20	\$331.84	\$298.66	\$2,289.7
		SLAC T&M Crafts - Union Electrician		В&Н	0	0.61 wks	\$0.00	\$0.00	\$0.00	\$1,659.20	\$0.00	\$0.00	\$0.0
2854	1.2.4.1.11	Vacuum Beamline Installation	SLAC	B&H	3	16 wks	\$0.00	\$0.00	\$31,980.80	\$31,980.80	\$6,396.16	\$13,431.94	\$51,808.9
		SLAC Mech. Fab: Assembly Tech		В&Н	0	16 wks	\$0.00	\$0.00	\$0.00	\$31,980.80	\$0.00	\$0.00	\$0.0
2855	1.2.4.1.12	Injector Support Installation			3	110.5 wks	\$0.00	\$0.00	\$249,459.60	\$249,459.60	\$49,891.92	\$104,773.03	\$404,124.5
2856	1.2.4.1.12	Installation	SLAC	B&H	3	17 wks	\$0.00	\$0.00	\$33,979.60	\$33,979.60	\$6,795.92	\$14,271.43	\$55,046.9
		SLAC Mech. Fab: Assembly Tech		B&H	0	17 wks	\$0.00	\$0.00	\$0.00	\$33,979.60	\$0.00	\$0.00	\$0.0
2857	1.2.4.1.12	Installation Welding	SLAC	B&H	3	2.5 wks	\$0.00	\$0.00	\$8,000.00	\$8,000.00	\$1,600.00	\$3,360.00	\$12,960.0
		SLAC Mech. Fab: Machine Shop		B&H	0	2.5 wks	\$0.00	\$0.00	\$0.00	\$8,000.00	\$0.00	\$0.00	\$0.0
2858	1.2.4.1.12	Alignment	SLAC	B&H	3	91 wks	\$0.00	\$0.00	\$207,480.00	\$207,480.00	\$41,496.00	\$87,141.60	\$336,117.6
		SLAC Metrology:Eng.& Surveyors		B&H	0	91 wks	\$0.00	\$0.00	\$0.00	\$207,480.00	\$0.00	\$0.00	\$0.0
2859	1.2.4.2	Linac Installation			0	426.69 wks	\$0.00	\$0.00	\$986,657.14	\$986,657.14	\$197,331.43	\$462,879.09	\$1,646,867.6
2860	1.2.4.2.1	FFTB De-installation			0	78 wks	\$0.00	\$0.00	\$176,611.20	\$176.611.20	\$35,322.24	\$74,176.70	\$286,110.1
2861	1.2.4.2.1.1	FFTB De-installation (MFPAS)	SLAC	B&H	3	24 wks	\$0.00	\$0.00	\$47,971.20	\$47,971.20	\$9,594.24	\$20,147.90	\$77,713.3
		SLAC Mech. Fab: Assembly Tech		B&H	0	24 wks	\$0.00	\$0.00	\$0.00	\$47,971.20	\$0.00	\$0.00	\$0.0
2862	1.2.4.2.1.1	FFTB De-installation (TMEO)	SLAC	B&H	3	12 wks	\$0.00	\$0.00	\$28,320.00	\$28,320.00	\$5,664.00	\$11,894.40	\$45,878.4
	112.112.111	SLAC T&M Crafts - Union Equip. Op.	02710	B&H	0	12 wks	\$0.00	\$0.00	\$0.00	\$28,320.00	\$0.00	\$0.00	\$0.0
2863	1.2.4.2.1.1		SLAC	B&H	3	12 WKS	\$0.00	\$0.00	\$73,440.00	\$73,440.00	\$14,688.00	\$30,844.80	\$118,972.
2003	1.2.4.2.1.1	SLAC T&M Crafts - Union Ironwork.	SLAC	B&H	3	34 wks	\$0.00	\$0.00	\$73,440.00	\$73,440.00		\$30,844.80	\$118,972.8
2004	124211		CLAC								\$0.00		
2864	1.2.4.2.1.1	FFTB De-installation (MEVE)	SLAC	ED&I	3	8 wks	\$0.00	\$0.00	\$26,880.00	\$26,880.00	\$5,376.00	\$11,289.60	\$43,545.0
		SLAC AD: Mech/Vacuum Engineer		ED&I	0	8 wks	\$0.00	\$0.00	\$0.00	\$26,880.00	\$0.00	\$0.00	\$0.0
2865	1.2.4.2.2	L1 Installation			0	11.48 wks	\$0.00	\$0.00	\$25,329.82	\$25,329.82	\$5,065.96	\$7,598.95	\$37,994.7

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ID 2866		Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
866	1.2.4.2.2.1	L1 Installation (MFPAS)	SLAC	B&H	2	8.48 wks	\$0.00	\$0.00	\$16,949.82	\$16,949.82	\$3,389.96	\$5,084.95	\$25,424.
		SLAC Mech. Fab: Assembly Tech		B&H	0	8.48 wks	\$0.00	\$0.00	\$0.00	\$16,949.82	\$0.00	\$0.00	\$0.
367	1.2.4.2.2.1	L1 Installation (TMEO)	SLAC	B&H	2	0.5 wks	\$0.00	\$0.00	\$1,180.00	\$1,180.00	\$236.00	\$354.00	\$1,770.
		SLAC T&M Crafts - Union Equip. Op.		B&H	0	0.5 wks	\$0.00	\$0.00	\$0.00	\$1,180.00	\$0.00	\$0.00	\$0.
368	1.2.4.2.2.1	L1 Installation (TMIW)	SLAC	B&H	2	1 wk	\$0.00	\$0.00	\$2,160.00	\$2,160.00	\$432.00	\$648.00	\$3,240
		SLAC T&M Crafts - Union Ironwork.		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,160.00	\$0.00	\$0.00	\$0
369	1.2.4.2.2.1	L1 Installation (MEVE)	SLAC	ED&I	2	1.5 wks	\$0.00	\$0.00	\$5,040.00	\$5,040.00	\$1,008.00	\$1,512.00	\$7,560
-		SLAC AD: Mech/Vacuum Engineer		ED&I	0	1.5 wks	\$0.00	\$0.00	\$0.00	\$5,040.00	\$0.00	\$0.00	\$0
370	1.2.4.2.3	BC1 Installation			0	32.68 wks	\$0.00	\$0.00	\$72,133.98	\$72,133.98	\$14,426.80	\$30,296.27	\$116,857
371	1.2.4.2.3.1	BC1 Installation (MFPAS)	SLAC	B&H	3	21.68 wks	\$0.00	\$0.00	\$43,333.98	\$43,333.98	\$8,666.80	\$18,200.27	\$70,201
_		SLAC Mech. Fab: Assembly Tech		B&H	0	21.68 wks	\$0.00	\$0.00	\$0.00	\$43,333.98	\$0.00	\$0.00	\$0
372	1.2.4.2.3.1	BC1 Installation (TMEO)	SLAC	B&H	3	2.4 wks	\$0.00	\$0.00	\$5,664.00	\$5,664.00	\$1,132.80	\$2,378.88	\$9,175
		SLAC T&M Crafts - Union Equip. Op.		B&H	0	2.4 wks	\$0.00	\$0.00	\$0.00	\$5,664.00	\$0.00	\$0.00	\$0
373	1.2.4.2.3.1	BC1 Installation (TMIW)	SLAC	B&H	3	4.8 wks	\$0.00	\$0.00	\$10.368.00	\$10,368.00	\$2,073.60	\$4,354.56	\$16,796
113	1.2.4.2.3.1	, ,	SLAC				,,,,,,		, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				
		SLAC T&M Crafts - Union Ironwork.		B&H	0	4.8 wks	\$0.00	\$0.00	\$0.00	\$10,368.00	\$0.00	\$0.00	\$0
74	1.2.4.2.3.1	BC1 Installation (MEVE)	SLAC	ED&I	3	3.8 wks	\$0.00	\$0.00	\$12,768.00	\$12,768.00	\$2,553.60	\$5,362.56	\$20,68
		SLAC AD: Mech/Vacuum Engineer		ED&I	0	3.8 wks	\$0.00	\$0.00	\$0.00	\$12,768.00	\$0.00	\$0.00	\$0
375	1.2.4.2.4	L2 Installation			0	11.13 wks	\$0.00	\$0.00	\$24,459.34	\$24,459.34	\$4,891.87	\$7,337.80	\$36,689
376	1.2.4.2.4.1	L2 Installation (MFPAS)	SLAC	B&H	2	8.88 wks	\$0.00	\$0.00	\$17,749.34	\$17,749.34	\$3,549.87	\$5,324.80	\$26,624
\neg		SLAC Mech. Fab: Assembly Tech		B&H	0	8.88 wks	\$0.00	\$0.00	\$0.00	\$17,749.34	\$0.00	\$0.00	\$0
377	1.2.4.2.4.1	L2 Installation (TMEO)	SLAC	B&H	2	0.25 wks	\$0.00	\$0.00	\$590.00	\$590.00	\$118.00	\$177.00	\$88
		SLAC T&M Crafts - Union Equip. Op.		B&H	0	0.25 wks	\$0.00	\$0.00	\$0.00	\$590.00	\$0.00	\$0.00	\$0
378	1.2.4.2.4.1	L2 Installation (TMIW)	SLAC	B&H	2	0.5 wks	\$0.00	\$0.00	\$1,080.00	\$1,080.00	\$216.00	\$324.00	\$1,620
_		SLAC T&M Crafts - Union Ironwork.		B&H	0	0.5 wks	\$0.00	\$0.00	\$0.00	\$1,080.00	\$0.00	\$0.00	\$0
379	1.2.4.2.4.1	L2 Installation (MEVE)	SLAC	ED&I	2	1.5 wks	\$0.00	\$0.00	\$5,040.00	\$5,040.00	\$1,008.00	\$1,512.00	\$7,560
_		SLAC AD: Mech/Vacuum Engineer		ED&I	0	1.5 wks	\$0.00	\$0.00	\$0.00	\$5,040.00	\$0.00	\$0.00	\$0
380	1.2.4.2.5	BC2 Installation			0	36.28 wks	\$0.00	\$0.00	\$80,826.38	\$80,826.38	\$16,165.28	\$33,947.08	\$130,938
381	1.2.4.2.5.1	BC2 Installation (MFPAS)	SLAC	B&H	3	24.68 wks	\$0.00	\$0.00	\$49.330.38	\$49,330.38	\$9,866.08	\$20.718.76	\$79,915
		SLAC Mech. Fab: Assembly Tech		B&H	0	24.68 wks	\$0.00	\$0.00	\$0.00	\$49,330.38	\$0.00	\$0.00	\$0
		·											
82	1.2.4.2.5.1	BC2 Installation (TMEO)	SLAC	B&H	3	2.2 wks	\$0.00	\$0.00	\$5,192.00	\$5,192.00	\$1,038.40	\$2,180.64	\$8,41
		SLAC T&M Crafts - Union Equip. Op.		B&H	0	2.2 wks	\$0.00	\$0.00	\$0.00	\$5,192.00	\$0.00	\$0.00	\$0
883	1.2.4.2.5.1	BC2 Installation (TMIW)	SLAC	B&H	3	4.4 wks	\$0.00	\$0.00	\$9,504.00	\$9,504.00	\$1,900.80	\$3,991.68	\$15,39
		SLAC T&M Crafts - Union Ironwork.		B&H	0	4.4 wks	\$0.00	\$0.00	\$0.00	\$9,504.00	\$0.00	\$0.00	\$0
884	1.2.4.2.5.1	BC2 Installation (MEVE)	SLAC	ED&I	3	5 wks	\$0.00	\$0.00	\$16,800.00	\$16,800.00	\$3,360.00	\$7,056.00	\$27,210
		SLAC AD: Mech/Vacuum Engineer		ED&I	0	5 wks	\$0.00	\$0.00	\$0.00	\$16,800.00	\$0.00	\$0.00	\$0

ID		Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
2885	1.2.4.2.6	L3 Installation			0	34.05 wks	\$0.00	\$0.00	\$76,232.34	\$76,232.34	\$15,246.47	\$22,869.70	\$114,348.5
2886	1.2.4.2.6.1	L3 Installation (MFPAS)	SLAC	B&H	2	23.05 wks	\$0.00	\$0.00	\$46,072.34	\$46,072.34	\$9,214.47	\$13,821.70	\$69,108.5
		SLAC Mech. Fab: Assembly Tech		B&H	0	23.05 wks	\$0.00	\$0.00	\$0.00	\$46,072.34	\$0.00	\$0.00	\$0.0
887	1.2.4.2.6.1	L3 Installation (TMEO)	SLAC	B&H	2	2 wks	\$0.00	\$0.00	\$4,720.00	\$4,720.00	\$944.00	\$1,416.00	\$7,080.0
\dashv		SLAC T&M Crafts - Union Equip. Op.		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,720.00	\$0.00	\$0.00	\$0.0
888	1.2.4.2.6.1	L3 Installation (TMIW)	SLAC	B&H	2	4 wks	\$0.00	\$0.00	\$8,640.00	\$8,640.00	\$1,728.00	\$2,592.00	\$12,960.0
\dashv		SLAC T&M Crafts - Union Ironwork.		B&H	0	4 wks	\$0.00	\$0.00	\$0.00	\$8,640.00	\$0.00	\$0.00	\$0.0
889	1.2.4.2.6.1	L3 Installation (MEVE)	SLAC	ED&I	2	5 wks	\$0.00	\$0.00	\$16,800.00	\$16,800.00	\$3,360.00	\$5,040.00	\$25,200.
\dashv		SLAC AD: Mech/Vacuum Engineer		ED&I	0	5 wks	\$0.00	\$0.00	\$0.00	\$16,800.00	\$0.00	\$0.00	\$0.0
390	1.2.4.2.7	DL2 Installation			0	103.26 wks	\$0.00	\$0.00	\$232,970.62	\$232,970.62	\$46,594.12	\$139,782.37	\$419,347.
891	1.2.4.2.7.1	DL2 Installation (MFPAS)	SLAC	B&H	4	23.48 wks	\$0.00	\$0.00	\$46,931.82	\$46,931.82	\$9,386.36	\$28,159.09	\$84,477.2
		SLAC Mech. Fab: Assembly Tech		B&H	0	23.48 wks	\$0.00	\$0.00	\$0.00	\$46,931.82	\$0.00	\$0.00	\$0.0
392	1.2.4.2.7.1	DL2 Installation (TMEO)	SLAC	B&H	4	16.97 wks	\$0.00	\$0.00	\$40,049.20	\$40,049.20	\$8,009.84	\$24,029.52	\$72,088.
		SLAC T&M Crafts - Union Equip. Op.		B&H	0	16.97 wks	\$0.00	\$0.00	\$0.00	\$40,049.20	\$0.00	\$0.00	\$0.
893	1.2.4.2.7.1	DL2 Installation (TMIW)	SLAC	B&H	4	50.81 wks	\$0.00	\$0.00	\$109,749.60	\$109,749.60	\$21,949.92	\$65,849.76	\$197,549.
\dashv		SLAC T&M Crafts - Union Ironwork.		B&H	0	50.81 wks	\$0.00	\$0.00	\$0.00	\$109,749.60	\$0.00	\$0.00	\$0.
394	1.2.4.2.7.1	DL2 Installation (TMPL)	SLAC	B&H	4	6 wks	\$0.00	\$0.00	\$16,080.00	\$16,080.00	\$3,216.00	\$9,648.00	\$28,944.
\dashv		SLAC T&M Crafts - Union Pipefitter		B&H	0	6 wks	\$0.00	\$0.00	\$0.00	\$16,080.00	\$0.00	\$0.00	\$0.
895	1.2.4.2.7.1	DL2 Installation (MEVE)	SLAC	ED&I	4	6 wks	\$0.00	\$0.00	\$20,160.00	\$20,160.00	\$4,032.00	\$12,096.00	\$36,288.
		SLAC AD: Mech/Vacuum Engineer		ED&I	0	6 wks	\$0.00	\$0.00	\$0.00	\$20,160.00	\$0.00	\$0.00	\$0.
896	1.2.4.2.8	Dumpline			0	48.4 wks	\$0.00	\$0.00	\$108,698.24	\$108,698.24	\$21,739.65	\$65,218.94	\$195,656.
897	1.2.4.2.8.1	Dumpline (MFPAS)	SLAC	B&H	4	14.8 wks	\$0.00	\$0.00	\$29,582.24	\$29,582.24	\$5,916.45	\$17,749.34	\$53,248.
\dashv		SLAC Mech. Fab: Assembly Tech		B&H	0	14.8 wks	\$0.00	\$0.00	\$0.00	\$29,582.24	\$0.00	\$0.00	\$0.
898	1.2.4.2.8.1	Dumpline (TMEO)	SLAC	B&H	4	6.9 wks	\$0.00	\$0.00	\$16,284.00	\$16,284.00	\$3,256.80	\$9,770.40	\$29,311.
\dashv		SLAC T&M Crafts - Union Equip. Op.		B&H	0	6.9 wks	\$0.00	\$0.00	\$0.00	\$16,284.00	\$0.00	\$0.00	\$0.
399	1.2.4.2.8.1	DL2 Installation (TMIW)	SLAC	B&H	4	20.7 wks	\$0.00	\$0.00	\$44,712.00	\$44,712.00	\$8,942.40	\$26,827.20	\$80,481
\dashv		SLAC T&M Crafts - Union Ironwork.		B&H	0	20.7 wks	\$0.00	\$0.00	\$0.00	\$44,712.00	\$0.00	\$0.00	\$0.
900	1.2.4.2.8.1	DL2 Installation (TMPL)	SLAC	B&H	4	3 wks	\$0.00	\$0.00	\$8,040.00	\$8,040.00	\$1,608.00	\$4,824.00	\$14,472.
\dashv		SLAC T&M Crafts - Union Pipefitter		B&H	0	3 wks	\$0.00	\$0.00	\$0.00	\$8,040.00	\$0.00	\$0.00	\$0.
901	1.2.4.2.8.1	Dumpline (MEVE)	SLAC	ED&I	4	3 wks	\$0.00	\$0.00	\$10,080.00	\$10,080.00	\$2,016.00	\$6,048.00	\$18,144
\dashv		SLAC AD: Mech/Vacuum Engineer		ED&I	0	3 wks	\$0.00	\$0.00	\$0.00	\$10,080.00	\$0.00	\$0.00	\$0.
902	1.2.4.2.9	Power Conversion	SLAC		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
903	1.2.4.2.10	Controls			0	71.41 wks	\$0.00	\$0.00	\$189,395.20	\$189,395.20	\$37,879.04	\$81,651.26	\$308,925.
	1.2.4.2.10.1	Computers and Crates (6)	SLAC		0	2.5 wks	\$0.00	\$0.00	\$6,800.00	\$6,800.00	\$1,360.00	\$2,856.00	\$11,016.
	1.2.4.2.10.1	Install CAMAC System Cableplant	SLAC	B&H	3	2.5 wks	\$0.00	\$0.00	\$6,800.00	\$6,800.00	\$1,360.00	\$2,856.00	\$11,016

ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
- ID	CWBS	SLAC T&M Crafts - Union Electrician	OBS	B&H	0	2.5 wks	\$0.00	\$0.00	\$0.00	\$6,800.00	\$0.00		\$0.0
2906	1.2.4.2.10.2	TIMING DISTRIBUTION SYSTEM-CAMAC	SLAC		0	28 wks	\$0.00	\$0.00	\$71,320.00	\$71,320.00	\$14,264.00	\$29,954.40	\$115,538.4
2907	1.2.4.2.10.2	Install Timing System Heliax Cableplant	SLAC	B&H	3	3 wks	\$0.00	\$0.00	\$8,160.00	\$8,160.00	\$1,632.00	\$3,427.20	\$13,219.2
		SLAC T&M Crafts - Union Electrician		В&Н	0	3 wks	\$0.00	\$0.00	\$0.00	\$8,160.00	\$0.00	\$0.00	\$0.0
908	1.2.4.2.10.2	Timing Software support	SLAC	ED&I	3	25 wks	\$0.00	\$0.00	\$63,160.00	\$63,160.00	\$12,632.00	\$26,527.20	\$102,319.2
		SLAC Controls: Programmer		ED&I	0	25 wks	\$0.00	\$0.00	\$0.00	\$63,160.00	\$0.00	\$0.00	\$0.0
909	1.2.4.2.10.3	LCLS VACUUM SYSTEM (2)	SLAC		0	1.6 wks	\$0.00	\$0.00	\$4,352.00	\$4,352.00	\$870.40	\$1,827.84	\$7,050.2
910	1.2.4.2.10.3	Replace Ion Pump Cables (250')	SLAC	B&H	3	1 wk	\$0.00	\$0.00	\$2,720.00	\$2,720.00	\$544.00	\$1,142.40	\$4,406.4
		SLAC T&M Crafts - Union Electrician		В&Н	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,720.00	\$0.00	\$0.00	\$0.0
911	1.2.4.2.10.3	Vacuum Valve Cables (coax) (250')	SLAC	B&H	3	0.6 wks	\$0.00	\$0.00	\$1,632.00	\$1,632.00	\$326.40	\$685.44	\$2,643.8
		SLAC T&M Crafts - Union Electrician		В&Н	0	0.6 wks	\$0.00	\$0.00	\$0.00	\$1,632.00	\$0.00	\$0.00	\$0.0
912	1.2.4.2.10.4	TUNE-UP DUMPS (3)	SLAC		0	1 wk	\$0.00	\$0.00	\$2,720.00	\$2,720.00	\$544.00	\$1,142.40	\$4,406.4
913	1.2.4.2.10.2.4	Multi-conductor (21C/16GA-CONT&STAT) (2)	SLAC	B&H	3	1 wk	\$0.00	\$0.00	\$2,720.00	\$2,720.00	\$544.00	\$1,142.40	\$4,406.4
		SLAC T&M Crafts - Union Electrician		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,720.00	\$0.00	\$0.00	\$0.0
914	1.2.4.2.10.5	WIRE SCANNERS (14)	SLAC		0	5.4 wks	\$0.00	\$0.00	\$14,688.00	\$14,688.00	\$2,937.60	\$6,168.96	\$23,794.5
915	1.2.4.2.10.5	RG58 to PMT 250'	SLAC	B&H	3	2.4 wks	\$0.00	\$0.00	\$6,528.00	\$6,528.00	\$1,305.60	\$2,741.76	\$10,575.
		SLAC T&M Crafts - Union Electrician		B&H	0	2.4 wks	\$0.00	\$0.00	\$0.00	\$6,528.00	\$0.00	\$0.00	\$0.0
916	1.2.4.2.10.5	MULTI-COND (4PR) DATRONIC TO LVDT 250'	SLAC	B&H	3	3 wks	\$0.00	\$0.00	\$8,160.00	\$8,160.00	\$1,632.00	\$3,427.20	\$13,219.
		SLAC T&M Crafts - Union Electrician		B&H	0	3 wks	\$0.00	\$0.00	\$0.00	\$8,160.00	\$0.00	\$0.00	\$0.0
917	1.2.4.2.10.6	BPM's (136)w/ 6 Linac / 2 Special / 2 Dump	SLAC		0	4.3 wks	\$0.00	\$0.00	\$11,696.00	\$11,696.00	\$2,339.20	\$7,017.60	\$21,052.
918	1.2.4.2.10.6.6	RG223 (4 ea BPM, timed and matched, 200')	SLAC	B&H	4	4.3 wks	\$0.00	\$0.00	\$11,696.00	\$11,696.00	\$2,339.20	\$7,017.60	\$21,052.
		SLAC T&M Crafts - Union Electrician		B&H	0	4.3 wks	\$0.00	\$0.00	\$0.00	\$11,696.00	\$0.00	\$0.00	\$0.0
919	1.2.4.2.10.7	TOROIDS (7) w/ BC's and Dump	SLAC		0	0.9 wks	\$0.00	\$0.00	\$2,448.00	\$2,448.00	\$489.60	\$1,028.16	\$3,965.7
920	1.2.4.2.10.7	RG22, TCM to TCM PreAmp (2)	SLAC	B&H	3	0.3 wks	\$0.00	\$0.00	\$816.00	\$816.00	\$163.20	\$342.72	\$1,321.
		SLAC T&M Crafts - Union Electrician		B&H	0	0.3 wks	\$0.00	\$0.00	\$0.00	\$816.00	\$0.00	\$0.00	\$0.0
921	1.2.4.2.10.7	2/c power, TCM to TCM PreAmp (1 each toroid)	SLAC	B&H	3	0.3 wks	\$0.00	\$0.00	\$816.00	\$816.00	\$163.20	\$342.72	\$1,321.
		SLAC T&M Crafts - Union Electrician		B&H	0	0.3 wks	\$0.00	\$0.00	\$0.00	\$816.00	\$0.00	\$0.00	\$0.
922	1.2.4.2.10.7	RG58, TCM to TCM PreAmp (1 each toroid))	SLAC	B&H	3	0.3 wks	\$0.00	\$0.00	\$816.00	\$816.00	\$163.20	\$342.72	\$1,321.
		SLAC T&M Crafts - Union Electrician		B&H	0	0.3 wks	\$0.00	\$0.00	\$0.00	\$816.00	\$0.00	\$0.00	\$0.
923	1.2.4.2.10.8	PROFILE MONITORS (4) w/ 1 Dump	SLAC		0	3 wks	\$0.00	\$0.00	\$8,160.00	\$8,160.00	\$1,632.00	\$3,427.20	\$13,219.
924	1.2.4.2.10.8	RG59, coax-video (4)	SLAC	B&H	3	1 wk	\$0.00	\$0.00	\$2,720.00	\$2,720.00	\$544.00	\$1,142.40	\$4,406.
		SLAC T&M Crafts - Union Electrician		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,720.00	\$0.00	\$0.00	\$0.
925	1.2.4.2.10.8	, , , , , , , , , , , , , , , , , , , ,	SLAC	B&H	3	1 wk	\$0.00	\$0.00	\$2,720.00	\$2,720.00	\$544.00	\$1,142.40	\$4,406.
		SLAC T&M Crafts - Union Electrician		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,720.00	\$0.00	\$0.00	\$0.
926	1.2.4.2.10.8	Multi-conductor (3C/16GA-AC POWER) (4)	SLAC	B&H	3	1 wk	\$0.00	\$0.00	\$2,720.00	\$2,720.00	\$544.00	\$1,142.40	\$4,406.4

ID	CWBS	Task Name SLAC T&M Crafts - Union Electrician	OBS	PHASE B&H	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
				B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,720.00	\$0.00	\$0.00	\$0.0
2927	1.2.4.2.10.9	E-O Diagnostic	SLAC		0	0.11 wks	\$0.00	\$0.00	\$299.20	\$299.20	\$59.84	\$125.66	\$484.
928	1.2.4.2.10.9	Multi-Cond. cable (4PR)	SLAC	B&H	3	0.11 wks	\$0.00	\$0.00	\$299.20	\$299.20	\$59.84	\$125.66	\$484.
		SLAC T&M Crafts - Union Electrician		B&H	0	0.11 wks	\$0.00	\$0.00	\$0.00	\$299.20	\$0.00	\$0.00	\$0.
929	1.2.4.2.10.10	RF Controls	SLAC		0	0.6 wks	\$0.00	\$0.00	\$1,632.00	\$1,632.00	\$326.40	\$685.44	\$2,643.
930	2.4.2.10.10.1	Sector 24	SLAC		0	0.3 wks	\$0.00	\$0.00	\$816.00	\$816.00	\$163.20	\$342.72	\$1,321.
931	2.4.2.10.10.1	CblpInt Phase & Amp., BLM, TC's.(Gun & L0+L1+X-Band)	SLAC	B&H	3	0.3 wks	\$0.00	\$0.00	\$816.00	\$816.00	\$163.20	\$342.72	\$1,321.
		SLAC T&M Crafts - Union Electrician		B&H	0	0.3 wks	\$0.00	\$0.00	\$0.00	\$816.00	\$0.00	\$0.00	\$0.
2932	2.4.2.10.10.2	Sector 30	SLAC		0	0.3 wks	\$0.00	\$0.00	\$816.00	\$816.00	\$163.20	\$342.72	\$1,321.
933	2.4.2.10.10.2	L0+L1+X-Band)	SLAC	B&H	3	0.3 wks	\$0.00	\$0.00	\$816.00	\$816.00	\$163.20	\$342.72	\$1,321.
		SLAC T&M Crafts - Union Electrician		B&H	0	0.3 wks	\$0.00	\$0.00	\$0.00	\$816.00	\$0.00	\$0.00	\$0.
2934	1.2.4.2.10.11	FFTB Controls Electronic Systems Removal	SLAC		0	24 wks	\$0.00	\$0.00	\$65,280.00	\$65,280.00	\$13,056.00	\$27,417.60	\$105,753.
2935	1.2.4.2.10.11	Remove abandoned Cableplant (B406 to Housing)	SLAC	B&H	3	24 wks	\$0.00	\$0.00	\$65,280.00	\$65,280.00	\$13,056.00	\$27,417.60	\$105,753.
		SLAC T&M Crafts - Union Electrician		B&H	0	24 wks	\$0.00	\$0.00	\$0.00	\$65,280.00	\$0.00	\$0.00	\$0.
2936	1.2.4.2.11	RF Installation	SLAC		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
2937	1.2.4.2.12	Protection Systems Installation	SLAC		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
2938	1.2.4.3	Undulator Installation			0	663.75 wks	\$0.00	\$0.00	\$1,409,689.50	\$1,409,689.50	\$281,937.90	\$592,069.59	\$2,283,696.
2939	1.2.4.3.1	Undulator Installation	SLAC	B&H	3	408.75 wks	\$0.00	\$0.00	\$817,009.50	\$817,009.50	\$163,401.90	\$343,143.99	\$1,323,555.
		SLAC Mech. Fab: Assembly Tech		B&H	0	408.75 wks	\$0.00	\$0.00	\$0.00	\$817,009.50	\$0.00	\$0.00	\$0.
2940	1.2.4.3.2	Instrumentation Installation	SLAC	B&H	3	65.4 wks	\$0.00	\$0.00	\$154,344.00	\$154,344.00	\$30,868.80	\$64,824.48	\$250,037
		SLAC T&M Crafts - Union Equip. Op.		B&H	0	65.4 wks	\$0.00	\$0.00	\$0.00	\$154,344.00	\$0.00	\$0.00	\$0.
2941	1.2.4.3.3	Power Conversion	SLAC	B&H	3	165.6 wks	\$0.00	\$0.00	\$357,696.00	\$357,696.00	\$71,539.20	\$150,232.32	\$579,467.
		SLAC T&M Crafts - Union Ironwork.		B&H	0	165.6 wks	\$0.00	\$0.00	\$0.00	\$357,696.00	\$0.00	\$0.00	\$0.
2942	1.2.4.3.4	Controls	SLAC	ED&I	3	24 wks	\$0.00	\$0.00	\$80,640.00	\$80,640.00	\$16,128.00	\$33,868.80	\$130,636.
		SLAC AD: Mech/Vacuum Engineer		ED&I	0	24 wks	\$0.00	\$0.00	\$0.00	\$80,640.00	\$0.00	\$0.00	\$0.
2943	1.2.4.4	LCLS Inj. & Linac Align.			0	157.4 wks	\$0.00	\$271,000.00	\$358,872.00	\$629,872.00	\$88,034.40	\$179,476.60	\$897,383.
2944	1.2.4.4.1	M&S			0	0 wks	\$0.00	\$271,000.00	\$0.00	\$271,000.00	\$16,260.00	\$71,815.00	\$359,075.0
2945	1.2.4.4.1.1	Hydrostatic level (inj. tunnel to Linac)	SLAC	M&S	2	0 wks	\$0.00	\$50,000.00	\$0.00	\$50,000.00	\$3,000.00	\$13,250.00	\$66,250.
		SLAC M&S Total		M&S	0	50,000	\$0.00	\$0.00	\$0.00	\$50,000.00	\$0.00	\$0.00	\$0.
2946	1.2.4.4.1.2	Laser Tracker	SLAC	M&S	2	0 wks	\$0.00	\$180,000.00	\$0.00	\$180,000.00	\$10,800.00	\$47,700.00	\$238,500
		SLAC M&S Total		M&S	0	180,000	\$0.00	\$0.00	\$0.00	\$180,000.00	\$0.00	\$0.00	\$0.
2947	1.2.4.4.1.3		SLAC	M&S	2	0 wks	\$0.00	\$5,000.00	\$0.00	\$5,000.00	\$300.00	\$1,325.00	\$6,625.
		SLAC M&S Total		M&S	0	5,000	\$0.00	\$0.00	\$0.00	\$5,000.00	\$0.00	\$0.00	\$0.
2948	1.2.4.4.1.4		SLAC	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$530.00	\$2,650
	1	SLAC M&S Total	1	M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0

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ID		Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
2949	1.2.4.4.1.5	Fiducial bushings	SLAC	M&S	2	0 wks	\$0.00	\$4,000.00	\$0.00	\$4,000.00	\$240.00	\$1,060.00	\$5,300.0
		SLAC M&S Total		M&S	0	4,000	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$0.0
950	1.2.4.4.1.6	Special Fixtures	SLAC	M&S	2	0 wks	\$0.00	\$30,000.00	\$0.00	\$30,000.00	\$1,800.00	\$7,950.00	\$39,750.0
		SLAC M&S Total		M&S	0	30,000	\$0.00	\$0.00	\$0.00	\$30,000.00	\$0.00	\$0.00	\$0.0
951	1.2.4.4.2	Fiducialization			0	20.8 wks	\$0.00	\$0.00	\$47,424.00	\$47,424.00	\$9,484.80	\$14,227.20	\$71,136.0
952	1.2.4.4.2.1	Injector quads	SLAC	B&H	2	3 wks	\$0.00	\$0.00	\$6,840.00	\$6,840.00	\$1,368.00	\$2,052.00	\$10,260.
		SLAC Metrology:Eng.& Surveyors		B&H	0	3 wks	\$0.00	\$0.00	\$0.00	\$6,840.00	\$0.00	\$0.00	\$0.
953	1.2.4.4.2.2	Injector dipoles	SLAC	B&H	2	0.6 wks	\$0.00	\$0.00	\$1,368.00	\$1,368.00	\$273.60	\$410.40	\$2,052
		SLAC Metrology:Eng.& Surveyors		B&H	0	0.6 wks	\$0.00	\$0.00	\$0.00	\$1,368.00	\$0.00	\$0.00	\$0.
954	1.2.4.4.2.3	Injector diagnostics	SLAC	B&H	2	1.6 wks	\$0.00	\$0.00	\$3,648.00	\$3,648.00	\$729.60	\$1,094.40	\$5,472
		SLAC Metrology:Eng.& Surveyors		B&H	0	1.6 wks	\$0.00	\$0.00	\$0.00	\$3,648.00	\$0.00	\$0.00	\$0.
955	1.2.4.4.2.4	Gun	SLAC	B&H	2	0.4 wks	\$0.00	\$0.00	\$912.00	\$912.00	\$182.40	\$273.60	\$1,368
		SLAC Metrology:Eng.& Surveyors		B&H	0	0.4 wks	\$0.00	\$0.00	\$0.00	\$912.00	\$0.00	\$0.00	\$0
56	1.2.4.4.2.5	Linac quads	SLAC	B&H	2	7.2 wks	\$0.00	\$0.00	\$16,416.00	\$16,416.00	\$3,283.20	\$4,924.80	\$24,624
\dashv		SLAC Metrology:Eng.& Surveyors		B&H	0	7.2 wks	\$0.00	\$0.00	\$0.00	\$16,416.00	\$0.00	\$0.00	\$0
57	1.2.4.4.2.6	Llinac dipoles	SLAC	B&H	2	3.6 wks	\$0.00	\$0.00	\$8,208.00	\$8,208.00	\$1,641.60	\$2,462.40	\$12,312
\dashv		SLAC Metrology:Eng.& Surveyors		B&H	0	3.6 wks	\$0.00	\$0.00	\$0.00	\$8,208.00	\$0.00	\$0.00	\$0
58	1.2.4.4.2.7	Linac diagnostics	SLAC	B&H	2	4.4 wks	\$0.00	\$0.00	\$10,032.00	\$10,032.00	\$2,006.40	\$3,009.60	\$15,048
\neg		SLAC Metrology:Eng.& Surveyors		B&H	0	4.4 wks	\$0.00	\$0.00	\$0.00	\$10,032.00	\$0.00	\$0.00	\$0
959	1.2.4.4.3	Accelerator Sections			0	84 wks	\$0.00	\$0.00	\$191,520.00	\$191,520.00	\$38,304.00	\$57,456.00	\$287,280
960	1.2.4.4.3.1	Straightness	SLAC	B&H	2	60 wks	\$0.00	\$0.00	\$136,800.00	\$136,800.00	\$27,360.00	\$41,040.00	\$205,200
\neg		SLAC Metrology:Eng.& Surveyors		B&H	0	60 wks	\$0.00	\$0.00	\$0.00	\$136,800.00	\$0.00	\$0.00	\$0
961	1.2.4.4.3.2	Alignment	SLAC	B&H	2	24 wks	\$0.00	\$0.00	\$54,720.00	\$54,720.00	\$10,944.00	\$16,416.00	\$82,080
		SLAC Metrology:Eng.& Surveyors		B&H	0	24 wks	\$0.00	\$0.00	\$0.00	\$54,720.00	\$0.00	\$0.00	\$0
962	1.2.4.4.4	Injector Tunnel Sector 20			0	12.6 wks	\$0.00	\$0.00	\$28,728.00	\$28,728.00	\$5,745.60	\$8,618.40	\$43,092.
963	1.2.4.4.4.1	Data Processing (Engineer)	SLAC	B&H	2	0.6 wks	\$0.00	\$0.00	\$1,368.00	\$1,368.00	\$273.60	\$410.40	\$2,052
\dashv		SLAC Metrology:Eng.& Surveyors		B&H	0	0.6 wks	\$0.00	\$0.00	\$0.00	\$1,368.00	\$0.00	\$0.00	\$0.
64	1.2.4.4.4.2	Networking/Inj Tunnel	SLAC	B&H	2	2 wks	\$0.00	\$0.00	\$4,560.00	\$4,560.00	\$912.00	\$1,368.00	\$6,840
\dashv		SLAC Metrology:Eng.& Surveyors		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,560.00	\$0.00	\$0.00	\$0
65	1.2.4.4.4.3	Networking/Sec. 20-8,20-9,21-1	SLAC	B&H	2	4 wks	\$0.00	\$0.00	\$9,120.00	\$9,120.00	\$1,824.00	\$2,736.00	\$13,680
\dashv		SLAC Metrology:Eng.& Surveyors		B&H	0	4 wks	\$0.00	\$0.00	\$0.00	\$9,120.00	\$0.00	\$0.00	\$0
166	1.2.4.4.4.4	Lay-out	SLAC	B&H	2	1.2 wks	\$0.00	\$0.00	\$2,736.00	\$2,736.00	\$547.20	\$820.80	\$4,104
\dashv		SLAC Metrology:Eng.& Surveyors		B&H	0	1.2 wks	\$0.00	\$0.00	\$0.00	\$2,736.00	\$0.00	\$0.00	\$0
967	1.2.4.4.4.5	Align supports	SLAC	B&H	2	1.2 wks	\$0.00	\$0.00	\$2,736.00	\$2,736.00	\$547.20	\$820.80	\$4,104
		SLAC Metrology:Eng.& Surveyors		B&H	0	1.2 wks	\$0.00	\$0.00	\$0.00	\$2,736.00	\$0.00	\$0.00	\$0.

ID		Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
2968	1.2.4.4.4.6	Pre-align components	SLAC	B&H	2	1.6 wks	\$0.00	\$0.00	\$3,648.00	\$3,648.00	\$729.60	\$1,094.40	\$5,472.0
		SLAC Metrology:Eng.& Surveyors		B&H	0	1.6 wks	\$0.00	\$0.00	\$0.00	\$3,648.00	\$0.00	\$0.00	\$0.00
2969	1.2.4.4.4.7	Fine alignment	SLAC	B&H	2	2 wks	\$0.00	\$0.00	\$4,560.00	\$4,560.00	\$912.00	\$1,368.00	\$6,840.0
		SLAC Metrology:Eng.& Surveyors		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,560.00	\$0.00	\$0.00	\$0.00
2970	1.2.4.4.5	Linac (20-9 through 28-7)			0	40 wks	\$0.00	\$0.00	\$91,200.00	\$91,200.00	\$18,240.00	\$27,360.00	\$136,800.00
2971	1.2.4.4.5.1	Data Processing (Engineer)	SLAC	B&H	2	12 wks	\$0.00	\$0.00	\$27,360.00	\$27,360.00	\$5,472.00	\$8,208.00	\$41,040.0
		SLAC Metrology:Eng.& Surveyors		В&Н	0	12 wks	\$0.00	\$0.00	\$0.00	\$27,360.00	\$0.00	\$0.00	\$0.00
2972	1.2.4.4.5.2	Networking : L2	SLAC	B&H	2	8 wks	\$0.00	\$0.00	\$18,240.00	\$18,240.00	\$3,648.00	\$5,472.00	\$27,360.0
		SLAC Metrology:Eng.& Surveyors		B&H	0	8 wks	\$0.00	\$0.00	\$0.00	\$18,240.00	\$0.00	\$0.00	\$0.00
2973	1.2.4.4.5.3	Pre-align components	SLAC	B&H	2	10 wks	\$0.00	\$0.00	\$22,800.00	\$22,800.00	\$4,560.00	\$6,840.00	\$34,200.0
		SLAC Metrology:Eng.& Surveyors		B&H	0	10 wks	\$0.00	\$0.00	\$0.00	\$22,800.00	\$0.00	\$0.00	\$0.00
2974	1.2.4.4.5.4	Fine alignment (map and moves)	SLAC	B&H	2	10 wks	\$0.00	\$0.00	\$22,800.00	\$22,800.00	\$4,560.00	\$6,840.00	\$34,200.0
		SLAC Metrology:Eng.& Surveyors		B&H	0	10 wks	\$0.00	\$0.00	\$0.00	\$22,800.00	\$0.00	\$0.00	\$0.00
2975	1.2.4.5	Linac Smoothing			0	200 wks	\$0.00	\$117,000.00	\$456,000.00	\$573,000.00	\$98,220.00	\$167,805.00	\$839,025.00
2976	1.2.4.5.1	Equipment			0	0 wks	\$0.00	\$117,000.00	\$0.00	\$117,000.00	\$7,020.00	\$31,005.00	\$155,025.00
2977	1.2.4.5.1.1	Hamar Laser	SLAC	M&S	2	0 wks	\$0.00	\$12,000.00	\$0.00	\$12,000.00	\$720.00	\$3,180.00	\$15,900.0
		SLAC M&S Total		M&S	0	12,000	\$0.00	\$0.00	\$0.00	\$12,000.00	\$0.00	\$0.00	\$0.00
2978	1.2.4.5.1.2	Hamar Laser Targets	SLAC	M&S	2	0 wks	\$0.00	\$22,000.00	\$0.00	\$22,000.00	\$1,320.00	\$5,830.00	\$29,150.0
		SLAC M&S Total		M&S	0	22,000	\$0.00	\$0.00	\$0.00	\$22,000.00	\$0.00	\$0.00	\$0.00
2979	1.2.4.5.1.3	Digital Interface	SLAC	M&S	2	0 wks	\$0.00	\$10,000.00	\$0.00	\$10,000.00	\$600.00	\$2,650.00	\$13,250.0
		SLAC M&S Total		M&S	0	10,000	\$0.00	\$0.00	\$0.00	\$10,000.00	\$0.00	\$0.00	\$0.00
2980	1.2.4.5.1.4	Data Logger	SLAC	M&S	2	0 wks	\$0.00	\$10,000.00	\$0.00	\$10,000.00	\$600.00	\$2,650,00	\$13,250.00
		SLAC M&S Total		M&S	0	10,000	\$0.00	\$0.00	\$0.00	\$10,000.00	\$0.00	\$0.00	\$0.00
2981	1.2.4.5.1.5	Laser/Target Stand	SLAC	M&S	2	0 wks	\$0.00	\$6,000.00	\$0.00	\$6,000.00	\$360.00	\$1,590.00	\$7,950.0
2301	1.2.4.3.1.3		SLAC	M&S		6,000	\$0.00		\$0.00	\$6,000.00	\$0.00		\$0.00
		SLAC M&S Total			0			\$0.00				\$0.00	
2982	1.2.4.5.1.6	Laser/Target Mount	SLAC	M&S	2	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$180.00	\$795.00	\$3,975.0
		SLAC M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0.00
2983	1.2.4.5.1.7	Offset Arm	SLAC	M&S	2	0 wks	\$0.00	\$10,000.00	\$0.00	\$10,000.00	\$600.00	\$2,650.00	\$13,250.0
		SLAC M&S Total		M&S	0	10,000	\$0.00	\$0.00	\$0.00	\$10,000.00	\$0.00	\$0.00	\$0.00
2984	1.2.4.5.1.8	Stand w. lockable wheels	SLAC	M&S	2	0 wks	\$0.00	\$6,000.00	\$0.00	\$6,000.00	\$360.00	\$1,590.00	\$7,950.0
		SLAC M&S Total		M&S	0	6,000	\$0.00	\$0.00	\$0.00	\$6,000.00	\$0.00	\$0.00	\$0.00
2985	1.2.4.5.1.9	Zeiss Automatic Level	SLAC	M&S	2	0 wks	\$0.00	\$30,000.00	\$0.00	\$30,000.00	\$1,800.00	\$7,950.00	\$39,750.0
		SLAC M&S Total		M&S	0	30,000	\$0.00	\$0.00	\$0.00	\$30,000.00	\$0.00	\$0.00	\$0.00
2986	1.2.4.5.1.10	Zeiss Industrial Scales	SLAC	M&S	2	0 wks	\$0.00	\$4,000.00	\$0.00	\$4,000.00	\$240.00	\$1,060.00	\$5,300.00
		SLAC M&S Total		M&S	0	4,000	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$0.00

ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
2987	1.2.4.5.1.11	Minirod	SLAC	M&S	2	0 wks	\$0.00	\$4,000.00	\$0.00	\$4,000.00	\$240.00	\$1,060.00	\$5,300.0
		SLAC M&S Total		M&S	0	4,000	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$0.0
2988	1.2.4.5.2	Smooth Linac	SLAC		0	200 wks	\$0.00	\$0.00	\$456,000.00	\$456,000.00	\$91,200.00	\$136,800.00	\$684,000.0
989	1.2.4.5.2.1	Horizontal Survey 1st lt.	SLAC	B&H	2	26 wks	\$0.00	\$0.00	\$59,280.00	\$59,280.00	\$11,856.00	\$17,784.00	\$88,920.0
		SLAC Metrology:Eng.& Surveyors		B&H	0	26 wks	\$0.00	\$0.00	\$0.00	\$59,280.00	\$0.00	\$0.00	\$0.0
990	1.2.4.5.2.2	Vertical Survey 1st lt.	SLAC	B&H	2	17.5 wks	\$0.00	\$0.00	\$39,900.00	\$39,900.00	\$7,980.00	\$11,970.00	\$59,850.0
		SLAC Metrology:Eng.& Surveyors		B&H	0	17.5 wks	\$0.00	\$0.00	\$0.00	\$39,900.00	\$0.00	\$0.00	\$0.0
991	1.2.4.5.2.3	Analyse Data	SLAC	B&H	2	8.75 wks	\$0.00	\$0.00	\$19,950.00	\$19,950.00	\$3,990.00	\$5,985.00	\$29,925.
		SLAC Metrology:Eng.& Surveyors		B&H	0	8.75 wks	\$0.00	\$0.00	\$0.00	\$19,950.00	\$0.00	\$0.00	\$0.
992	1.2.4.5.2.4	Apply Position Corrections	SLAC	B&H	2	26 wks	\$0.00	\$0.00	\$59,280.00	\$59,280.00	\$11,856.00	\$17,784.00	\$88,920.
		SLAC Metrology:Eng.& Surveyors		B&H	0	26 wks	\$0.00	\$0.00	\$0.00	\$59,280.00	\$0.00	\$0.00	\$0.
993	1.2.4.5.2.5	Horizontal Survey 2nd It.	SLAC	B&H	2	26 wks	\$0.00	\$0.00	\$59,280.00	\$59,280.00	\$11,856.00	\$17,784.00	\$88,920
		SLAC Metrology:Eng.& Surveyors		B&H	0	26 wks	\$0.00	\$0.00	\$0.00	\$59,280.00	\$0.00	\$0.00	\$0.
994	1.2.4.5.2.6	Vertical Survey 2nd It.	SLAC	B&H	2	17.5 wks	\$0.00	\$0.00	\$39,900.00	\$39,900.00	\$7,980.00	\$11,970.00	\$59,850
		SLAC Metrology:Eng.& Surveyors		B&H	0	17.5 wks	\$0.00	\$0.00	\$0.00	\$39,900.00	\$0.00	\$0.00	\$0.
95	1.2.4.5.2.7	Analyse Data	SLAC	B&H	2	8.75 wks	\$0.00	\$0.00	\$19,950.00	\$19,950.00	\$3,990.00	\$5,985.00	\$29,925
		SLAC Metrology:Eng.& Surveyors		B&H	0	8.75 wks	\$0.00	\$0.00	\$0.00	\$19,950.00	\$0.00	\$0.00	\$0.
996	1.2.4.5.2.8	Apply Position Corrections	SLAC	B&H	2	26 wks	\$0.00	\$0.00	\$59,280.00	\$59,280.00	\$11,856.00	\$17,784.00	\$88,920
		SLAC Metrology:Eng.& Surveyors		B&H	0	26 wks	\$0.00	\$0.00	\$0.00	\$59,280.00	\$0.00	\$0.00	\$0.
997	1.2.4.5.2.9	Horizontal Check Survey	SLAC	B&H	2	26 wks	\$0.00	\$0.00	\$59,280.00	\$59,280.00	\$11,856.00	\$17,784.00	\$88,920
		SLAC Metrology:Eng.& Surveyors		B&H	0	26 wks	\$0.00	\$0.00	\$0.00	\$59,280.00	\$0.00	\$0.00	\$0
998	1.2.4.5.2.10	Vertical Check Survey	SLAC	B&H	2	17.5 wks	\$0.00	\$0.00	\$39,900.00	\$39,900.00	\$7,980.00	\$11,970.00	\$59,850
		SLAC Metrology:Eng.& Surveyors		B&H	0	17.5 wks	\$0.00	\$0.00	\$0.00	\$39,900.00	\$0.00	\$0.00	\$0.
999	1.2.4.6	Undulator Alignment			0	200.6 wks	\$0.00	\$998,000.00	\$457,368.00	\$1,455,368.00	\$151,353.60	\$401,680.40	\$2,008,402.
000	1.2.4.6.1	M&S			0	0 wks	\$0.00	\$448,000.00	\$0.00	\$448,000.00	\$26,880.00	\$118,720.00	\$593,600.
001	1.2.4.6.1.1	Hydrostatic Level System, 80 sensors	SLAC	M&S	2	0 wks	\$0.00	\$240,000.00	\$0.00	\$240,000.00	\$14,400.00	\$63,600.00	\$318,000
		SLAC M&S Total		M&S	0	240,000	\$0.00	\$0.00	\$0.00	\$240,000.00	\$0.00	\$0.00	\$0.
002	1.2.4.6.1.2	Stretched wire system, 10 sensors	SLAC	M&S	2	0 wks	\$0.00	\$200,000.00	\$0.00	\$200,000.00	\$12,000.00	\$53,000.00	\$265,000
		SLAC M&S Total		M&S	0	200,000	\$0.00	\$0.00	\$0.00	\$200,000.00	\$0.00	\$0.00	\$0
003	1.2.4.6.1.3	Reference Points	SLAC	M&S	2	0 wks	\$0.00	\$8,000.00	\$0.00	\$8,000.00	\$480.00	\$2,120.00	\$10,600
		SLAC M&S Total		M&S	0	8,000	\$0.00	\$0.00	\$0.00	\$8,000.00	\$0.00	\$0.00	\$0.
004	1.2.4.6.2	Network			0	85.2 wks	\$0.00	\$0.00	\$194,256.00	\$194,256.00	\$38,851.20	\$58,276.80	\$291,384.
005	1.2.4.6.2.1	Installation	SLAC	B&H	2	1.2 wks	\$0.00	\$0.00	\$2,736.00	\$2,736.00	\$547.20	\$820.80	\$4,104
		SLAC Metrology:Eng.& Surveyors		B&H	0	1.2 wks	\$0.00	\$0.00	\$0.00	\$2,736.00	\$0.00	\$0.00	\$0.
006	1.2.4.6.2.2	Measurements	SLAC	B&H	2	6 wks	\$0.00	\$0.00	\$13,680.00	\$13,680.00	\$2,736.00	\$4,104.00	\$20,520.

ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		SLAC Metrology:Eng.& Surveyors		B&H	0	6 wks	\$0.00	\$0.00	\$0.00	\$13,680.00	\$0.00	\$0.00	\$0.00
3007	1.2.4.6.2.3	HLS Installation	SLAC	B&H	2	8 wks	\$0.00	\$0.00	\$18,240.00	\$18,240.00	\$3,648.00	\$5,472.00	\$27,360.0
		SLAC Metrology:Eng.& Surveyors		B&H	0	8 wks	\$0.00	\$0.00	\$0.00	\$18,240.00	\$0.00	\$0.00	\$0.00
3008	1.2.4.6.2.4	HLS Commisioning	SLAC	B&H	2	12 wks	\$0.00	\$0.00	\$27,360.00	\$27,360.00	\$5,472.00	\$8,208.00	\$41,040.0
		SLAC Metrology:Eng.& Surveyors		B&H	0	12 wks	\$0.00	\$0.00	\$0.00	\$27,360.00	\$0.00	\$0.00	\$0.00
3009	1.2.4.6.2.5	HLS Testing	SLAC	B&H	2	4 wks	\$0.00	\$0.00	\$9,120.00	\$9,120.00	\$1,824.00	\$2,736.00	\$13,680.0
		SLAC Metrology:Eng.& Surveyors		B&H	0	4 wks	\$0.00	\$0.00	\$0.00	\$9,120.00	\$0.00	\$0.00	\$0.00
3010	1.2.4.6.2.6	HLS Measurements	SLAC	B&H	2	8 wks	\$0.00	\$0.00	\$18,240.00	\$18,240.00	\$3,648.00	\$5,472.00	\$27,360.0
		SLAC Metrology:Eng.& Surveyors		B&H	0	8 wks	\$0.00	\$0.00	\$0.00	\$18,240.00	\$0.00	\$0.00	\$0.00
3011	1.2.4.6.2.7	Stretchwire Installation	SLAC	B&H	2	4 wks	\$0.00	\$0.00	\$9,120.00	\$9,120.00	\$1,824.00	\$2,736.00	\$13,680.0
		SLAC Metrology:Eng.& Surveyors		B&H	0	4 wks	\$0.00	\$0.00	\$0.00	\$9,120.00	\$0.00		\$0.00
3012	1.2.4.6.2.8	Stretchwire Commissioning	SLAC	B&H	2	12 wks	\$0.00	\$0.00	\$27,360.00	\$27,360.00	\$5,472.00		\$41,040.0
3012	1.2.4.0.2.0		SLAC		-		,,,,,,						
		SLAC Metrology:Eng.& Surveyors		B&H	0	12 wks	\$0.00	\$0.00	\$0.00	\$27,360.00	\$0.00		\$0.0
3013	1.2.4.6.2.9	Č	SLAC	B&H	2	4 wks	\$0.00	\$0.00	\$9,120.00	\$9,120.00	\$1,824.00		\$13,680.0
		SLAC Metrology:Eng.& Surveyors		B&H	0	4 wks	\$0.00	\$0.00	\$0.00	\$9,120.00	\$0.00	\$0.00	\$0.0
3014	1.2.4.6.2.10	Stretchwire Measurements	SLAC	B&H	2	8 wks	\$0.00	\$0.00	\$18,240.00	\$18,240.00	\$3,648.00	\$5,472.00	\$27,360.0
		SLAC Metrology:Eng.& Surveyors		B&H	0	8 wks	\$0.00	\$0.00	\$0.00	\$18,240.00	\$0.00	\$0.00	\$0.0
3015	1.2.4.6.2.11	Re-measurement (Laser tracker)	SLAC	B&H	2	6 wks	\$0.00	\$0.00	\$13,680.00	\$13,680.00	\$2,736.00	\$4,104.00	\$20,520.0
		SLAC Metrology:Eng.& Surveyors		B&H	0	6 wks	\$0.00	\$0.00	\$0.00	\$13,680.00	\$0.00	\$0.00	\$0.0
3016	1.2.4.6.2.12	Re-measurement (HLS)	SLAC	B&H	2	2 wks	\$0.00	\$0.00	\$4,560.00	\$4,560.00	\$912.00	\$1,368.00	\$6,840.0
		SLAC Metrology:Eng.& Surveyors		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,560.00	\$0.00	\$0.00	\$0.0
3017	1.2.4.6.2.13	Re-measurement (Wire)	SLAC	B&H	2	2 wks	\$0.00	\$0.00	\$4,560.00	\$4,560.00	\$912.00	\$1,368.00	\$6,840.0
		SLAC Metrology:Eng.& Surveyors		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,560.00	\$0.00	\$0.00	\$0.0
3018	1.2.4.6.2.14	Data Evaulation	SLAC	B&H	2	8 wks	\$0.00	\$0.00	\$18,240.00	\$18,240.00	\$3,648.00	\$5,472.00	\$27,360.0
		SLAC Metrology:Eng.& Surveyors		B&H	0	8 wks	\$0.00	\$0.00	\$0.00	\$18,240.00	\$0.00		\$0.0
3019	1.2.4.6.3			Dari	0	5 wks	\$0.00	\$0.00	\$11,400.00	\$11,400.00	\$2,280.00		\$17,100.0
		Layout									. ,		
3020	1.2.4.6.3.1	Computation	SLAC	B&H	2	1 wk	\$0.00	\$0.00	\$2,280.00	\$2,280.00	\$456.00		\$3,420.0
		SLAC Metrology:Eng.& Surveyors		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,280.00	\$0.00		\$0.0
3021	1.2.4.6.3.2	Mark Support bolts on Floor	SLAC	B&H	2	4 wks	\$0.00	\$0.00	\$9,120.00	\$9,120.00	\$1,824.00	\$2,736.00	\$13,680.0
		SLAC Metrology:Eng.& Surveyors		B&H	0	4 wks	\$0.00	\$0.00	\$0.00	\$9,120.00	\$0.00	\$0.00	\$0.0
3022	1.2.4.6.4	Pre-Align			0	23.2 wks	\$0.00	\$0.00	\$52,896.00	\$52,896.00	\$10,579.20	\$15,868.80	\$79,344.0
3023	1.2.4.6.4.1	Adjust stut nuts to nominal elevation	SLAC	B&H	2	2.4 wks	\$0.00	\$0.00	\$5,472.00	\$5,472.00	\$1,094.40	\$1,641.60	\$8,208.0
		SLAC Metrology:Eng.& Surveyors		B&H	0	2.4 wks	\$0.00	\$0.00	\$0.00	\$5,472.00	\$0.00	\$0.00	\$0.0
3024	1.2.4.6.4.2	Pre-align Stands	SLAC	B&H	2	8 wks	\$0.00	\$0.00	\$18,240.00	\$18,240.00	\$3,648.00	\$5,472.00	\$27,360.0
		SLAC Metrology:Eng.& Surveyors		B&H	0	8 wks	\$0.00	\$0.00	\$0.00	\$18,240.00	\$0.00	\$0.00	\$0.0

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ID		Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
025	1.2.4.6.4.3	Lab-align components on common supports	SLAC	B&H	2	6.4 wks	\$0.00	\$0.00	\$14,592.00	\$14,592.00	\$2,918.40	\$4,377.60	\$21,888.0
		SLAC Metrology:Eng.& Surveyors		B&H	0	6.4 wks	\$0.00	\$0.00	\$0.00	\$14,592.00	\$0.00	\$0.00	\$0.0
026	1.2.4.6.4.4	Pre-align undulators	SLAC	B&H	2	3.2 wks	\$0.00	\$0.00	\$7,296.00	\$7,296.00	\$1,459.20	\$2,188.80	\$10,944.
		SLAC Metrology:Eng.& Surveyors		B&H	0	3.2 wks	\$0.00	\$0.00	\$0.00	\$7,296.00	\$0.00	\$0.00	\$0.0
027	1.2.4.6.4.5	Pre-align rafts in tunnel	SLAC	B&H	2	3.2 wks	\$0.00	\$0.00	\$7,296.00	\$7,296.00	\$1,459.20	\$2,188.80	\$10,944.
		SLAC Metrology:Eng.& Surveyors		B&H	0	3.2 wks	\$0.00	\$0.00	\$0.00	\$7,296.00	\$0.00	\$0.00	\$0.
028	1.2.4.6.5	Align			0	25.4 wks	\$0.00	\$0.00	\$57,912.00	\$57,912.00	\$11,582.40	\$17,373.60	\$86,868.
29	1.2.4.6.5.1	Undulators Horiz	SLAC	B&H	2	2.4 wks	\$0.00	\$0.00	\$5,472.00	\$5,472.00	\$1,094.40	\$1,641.60	\$8,208
\dashv		SLAC Metrology:Eng.& Surveyors		B&H	0	2.4 wks	\$0.00	\$0.00	\$0.00	\$5,472.00	\$0.00	\$0.00	\$0.
030	1.2.4.6.5.2	Undulators Vert	SLAC	B&H	2	6.6 wks	\$0.00	\$0.00	\$15,048.00	\$15,048.00	\$3,009.60	\$4,514.40	\$22,572
		SLAC Metrology:Eng.& Surveyors		B&H	0	6.6 wks	\$0.00	\$0.00	\$0.00	\$15,048.00	\$0.00	\$0.00	\$0.
31	1.2.4.6.5.3	Survey Quadrupole/ BPM fiducial offsets	SLAC	B&H	2	3.2 wks	\$0.00	\$0.00	\$7,296.00	\$7,296.00	\$1,459.20	\$2,188.80	\$10,944
		SLAC Metrology:Eng.& Surveyors		B&H	0	3.2 wks	\$0.00	\$0.00	\$0.00	\$7,296.00	\$0.00	\$0.00	\$0.
032	1.2.4.6.5.4		SLAC	B&H	2	3.2 wks	\$0.00	\$0.00	\$7,296.00	\$7,296.00	\$1,459.20	\$2,188.80	\$10,944
		SLAC Metrology:Eng.& Surveyors		B&H	0	3.2 wks	\$0.00	\$0.00	\$0.00	\$7,296.00	\$0.00	\$0.00	\$0.
33	1.2.4.6.5.5		SLAC	B&H	2	0.8 wks	\$0.00	\$0.00	\$1,824.00	\$1,824.00	\$364.80	\$547.20	\$2,736
33	1.2.4.6.5.5		SLAC										
		SLAC Metrology:Eng.& Surveyors		B&H	0	0.8 wks	\$0.00	\$0.00	\$0.00	\$1,824.00	\$0.00	\$0.00	\$0.
034	1.2.4.6.5.6	, ,	SLAC	B&H	2	1.2 wks	\$0.00	\$0.00	\$2,736.00	\$2,736.00	\$547.20	\$820.80	\$4,104
		SLAC Metrology:Eng.& Surveyors		B&H	0	1.2 wks	\$0.00	\$0.00	\$0.00	\$2,736.00	\$0.00	\$0.00	\$0.
35	1.2.4.6.5.7	Quality Control	SLAC	B&H	2	8 wks	\$0.00	\$0.00	\$18,240.00	\$18,240.00	\$3,648.00	\$5,472.00	\$27,360
		SLAC Metrology:Eng.& Surveyors		B&H	0	8 wks	\$0.00	\$0.00	\$0.00	\$18,240.00	\$0.00	\$0.00	\$0
36	1.2.4.6.6	Fiducialization M&S			0	0 wks	\$0.00	\$550,000.00	\$0.00	\$550,000.00	\$33,000.00	\$145,750.00	\$728,750.
37	1.2.4.6.6.1	Undulator test stand + CCM	SLAC		2	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
38	1.2.4.6.6.2	Quad test stand	SLAC	M&S	2	0 wks	\$0.00	\$150,000.00	\$0.00	\$150,000.00	\$9,000.00	\$39,750.00	\$198,750
\dashv		SLAC M&S Total		M&S	0	150,000	\$0.00	\$0.00	\$0.00	\$150,000.00	\$0.00	\$0.00	\$0.
39	1.2.4.6.6.3	Climatized lab	SLAC	M&S	2	0 wks	\$0.00	\$200,000.00	\$0.00	\$200,000.00	\$12,000.00	\$53,000.00	\$265,000
		SLAC M&S Total		M&S	0	200,000	\$0.00	\$0.00	\$0.00	\$200,000.00	\$0.00	\$0.00	\$0.
040	1.2.4.6.6.4	BPM test stand	SLAC	M&S	2	0 wks	\$0.00	\$50,000.00	\$0.00	\$50,000.00	\$3,000.00	\$13,250.00	\$66,250
\dashv		SLAC M&S Total		M&S	0	50,000	\$0.00	\$0.00	\$0.00	\$50,000.00	\$0.00	\$0.00	\$0
041	1.2.4.6.6.5	X-ray opdiag test stand	SLAC	M&S	2	0 wks	\$0.00	\$150,000.00	\$0.00	\$150,000.00	\$9,000.00	\$39,750.00	\$198,750
		SLAC M&S Total		M&S	0	150,000	\$0.00	\$0.00	\$0.00	\$150,000.00	\$0.00	\$0.00	\$0.
)42	1.2.4.6.7	Fiducialization			0	61.8 wks	\$0.00	\$0.00	\$140,904.00	\$140,904.00	\$28,180.80	\$42,271.20	\$211,356
043	1.2.4.6.5.1	Undulators Mag Meas	SLAC	B&H	2	30 wks	\$0.00	\$0.00	\$68,400,00	\$68,400.00	\$13,680.00	\$20,520.00	\$102,600
			02.10	B&H	0	30 wks	\$0.00	\$0.00	\$0.00	\$68,400.00	\$0.00	\$0.00	\$0.
		SLAC Metrology:Eng.& Surveyors										,	
044	1.2.4.6.5.2	Und Fiduc Measure	SLAC	B&H	2	13 wks	\$0.00	\$0.00	\$29,640.00	\$29,640.00	\$5,928.00	\$8,892.00	\$44,460.

						LCLS_CD1_TEC							
ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		SLAC Metrology:Eng.& Surveyors		B&H	0	13 wks	\$0.00	\$0.00	\$0.00	\$29,640.00	\$0.00	\$0.00	\$0.0
3045	1.2.4.6.5.3	Und data Eval	SLAC	B&H	2	7.5 wks	\$0.00	\$0.00	\$17,100.00	\$17,100.00	\$3,420.00	\$5,130.00	\$25,650.0
		SLAC Metrology:Eng.& Surveyors		B&H	0	7.5 wks	\$0.00	\$0.00	\$0.00	\$17,100.00	\$0.00	\$0.00	\$0.0
046	1.2.4.6.5.4	Quads	SLAC	B&H	2	4.6 wks	\$0.00	\$0.00	\$10,488.00	\$10,488.00	\$2,097.60	\$3,146.40	\$15,732.0
		SLAC Metrology:Eng.& Surveyors		B&H	0	4.6 wks	\$0.00	\$0.00	\$0.00	\$10,488.00	\$0.00	\$0.00	\$0.0
8047	1.2.4.6.5.5	X-ray diagnostics	SLAC	B&H	2	6 wks	\$0.00	\$0.00	\$13,680.00	\$13,680.00	\$2,736.00	\$4,104.00	\$20,520.
		SLAC Metrology:Eng.& Surveyors		B&H	0	6 wks	\$0.00	\$0.00	\$0.00	\$13,680.00	\$0.00	\$0.00	\$0.
3048	1.2.4.6.5.6	BPMs	SLAC	B&H	2	0.4 wks	\$0.00	\$0.00	\$912.00	\$912.00	\$182.40	\$273.60	\$1,368.
		SLAC Metrology:Eng.& Surveyors		B&H	0	0.4 wks	\$0.00	\$0.00	\$0.00	\$912.00	\$0.00	\$0.00	\$0.
8049	1.2.4.6.5.7	Correctors	SLAC	B&H	2	0.3 wks	\$0.00	\$0.00	\$684.00	\$684.00	\$136.80	\$205.20	\$1,026.
		SLAC Metrology:Eng.& Surveyors		B&H	0	0.3 wks	\$0.00	\$0.00	\$0.00	\$684.00	\$0.00	\$0.00	\$0.
3050	1.3	Photo Beam Handling and Systems			0	12,142.14 wks	\$7,964,589.56	\$14,144,503.00	\$4,264,255.80	\$26,373,348.36	\$9,132,171.24	\$9,049,919.55	\$44,555,439.
3051	1.3.1	X-ray transport and diagnostics			0	9,896.79 wks	\$3,889,494.00	\$8,094,702.00	\$2,421,710.24	\$14,405,906.24	\$7,585,654.95	\$4,657,178.00	\$26,648,739.
3052	1.3.1.1	PED/Management			0	1,646.15 wks	\$3,889,494.00	\$0.00	\$0.00	\$3,889,494.00	\$3,754,752.12	\$1,598,944.95	\$9,243,191.
3053	1.3.1.1.1	Management and oversight			0	276.6 wks	\$569,232.00	\$0.00	\$0.00	\$569,232.00	\$500,895.36	\$160,519.10	\$1,230,646.4
054	1.3.1.1.1.1	Management	LLNL		0	276.6 wks	\$497,232.00	\$0.00	\$0.00	\$497,232.00	\$487,287.36	\$147,677.90	\$1,132,197.
055	1.3.1.1.1.1	Director	LLNL	ED&I	1	60 wks	\$129,600.00	\$0.00	\$0.00	\$129,600.00	\$127,008.00	\$38,491.20	\$295,099.
		LLNL Physicist -Scientist		ED&I	0	60 wks	\$0.00	\$0.00	\$0.00	\$129,600.00	\$0.00	\$0.00	\$0.
3056	1.3.1.1.1.1	Deputy	LLNL	ED&I	1	60 wks	\$129,600.00	\$0.00	\$0.00	\$129,600.00	\$127,008.00	\$38,491.20	\$295,099.
		LLNL Physicist -Scientist		ED&I	0	60 wks	\$0.00	\$0.00	\$0.00	\$129,600.00	\$0.00	\$0.00	\$0.
3057	1.3.1.1.1.1	Administrator	LLNL	ED&I	1	156.6 wks	\$238,032.00	\$0.00	\$0.00	\$238,032.00	\$233,271.36	\$70,695.50	\$541,998.
		LLNL Administration		ED&I	0	156.6 wks	\$0.00	\$0.00	\$0.00	\$238,032.00	\$0.00	\$0.00	\$0.
3058	1.3.1.1.1.2	Travel to SSRL	LLNL		0	0 wks	\$32,000.00	\$0.00	\$0.00	\$32,000.00	\$6,048.00	\$5,707.20	\$43,755.
3059	1.3.1.1.1.2	Director	LLNL	M&S	1	0 wks	\$8,000.00	\$0.00	\$0.00	\$8,000.00	\$1,512.00	\$1,426.80	\$10,938.
\dashv		LLNL M&S Total		M&S	0	8,000	\$0.00	\$0.00	\$0.00	\$8,000.00	\$0.00	\$0.00	\$0.0
8060	1.3.1.1.1.2	Deputy	LLNL	M&S	1	0 wks	\$24,000.00	\$0.00	\$0.00	\$24,000.00	\$4,536.00	\$4,280.40	\$32,816.
		LLNL M&S Total		M&S	0	24,000	\$0.00	\$0.00	\$0.00	\$24,000.00	\$0.00	\$0.00	\$0.
3061	1.3.1.1.1.3	Meetings	LLNL		0	0 wks	\$40,000.00	\$0.00	\$0.00	\$40,000.00	\$7,560.00	\$7,134.00	\$54,694.
3062	1.3.1.1.1.3	SSRL	LLNL	M&S	1	0 wks	\$1,000.00	\$0.00	\$0.00	\$1,000.00	\$189.00	\$178.35	\$1,367.
-		LLNL M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.
3063	1.3.1.1.1.3	ANL	LLNL	M&S	1	0 wks	\$5,000.00	\$0.00	\$0.00	\$5,000.00	\$945.00	\$891.75	\$6,836.
		LLNL M&S Total		M&S	0	5,000	\$0.00	\$0.00	\$0.00	\$5,000.00	\$0.00	\$0.00	\$0.
3064	1.3.1.1.1.3	SSRL	LLNL	M&S	1	0 wks	\$3,000.00	\$0.00	\$0.00	\$3,000.00	\$567.00	\$535.05	\$4,102.
		LLNL M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0.
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ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost		Total Cost
		LLNL M&S Total		M&S	0	5,000	\$0.00	\$0.00	\$0.00	\$5,000.00	\$0.00	\$0.00	\$0.00
3066	1.3.1.1.1.3	SSRL	LLNL	M&S	1	0 wks	\$3,000.00	\$0.00	\$0.00	\$3,000.00	\$567.00	\$535.05	\$4,102.05
		LLNL M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0.00
3067	1.3.1.1.1.3	BNL	LLNL	M&S	1	0 wks	\$8,000.00	\$0.00	\$0.00	\$8,000.00	\$1,512.00	\$1,426.80	\$10,938.80
		LLNL M&S Total		M&S	0	8,000	\$0.00	\$0.00	\$0.00	\$8,000.00	\$0.00	\$0.00	\$0.00
3068	1.3.1.1.1.3	SSRL	LLNL	M&S	1	0 wks	\$3,000.00	\$0.00	\$0.00	\$3,000.00	\$567.00	\$535.05	\$4,102.05
		LLNL M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0.00
3069	1.3.1.1.1.3	LANL	LLNL	M&S	1	0 wks	\$6,000.00	\$0.00	\$0.00	\$6,000.00	\$1,134.00	\$1,070.10	\$8,204.10
		LLNL M&S Total		M&S	0	6,000	\$0.00	\$0.00	\$0.00	\$6,000.00	\$0.00	\$0.00	\$0.00
3070	1.3.1.1.1.3	SSRL	LLNL	M&S	1	0 wks	\$3,000.00	\$0.00	\$0.00	\$3,000.00	\$567.00	\$535.05	\$4,102.05
		LLNL M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00		\$0.00
3071	1.3.1.1.1.3		LLNL	M&S	1	0 wks	\$3,000.00	\$0.00	\$0.00	\$3,000.00	\$567.00		\$4,102.05
5071	1.0.1.1.1.0	LLNL M&S Total	LEIVE	M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00		\$0.00
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3072	1.3.1.1.2				0	307.75 wks	\$711,050.00	\$0.00	\$0.00	\$711,050.00	\$696,829.00	\$242,972.73	\$1,650,851.73
3073	1.3.1.1.2.1	Fast close valve	LLNL		0	5 wks	\$11,560.00	\$0.00	\$0.00	\$11,560.00	\$11,328.80	\$3,433.32	\$26,322.12
3074	1.3.1.1.2.1	Spec	LLNL	ED&I	1	1 wk	\$2,800.00	\$0.00	\$0.00	\$2,800.00	\$2,744.00	\$831.60	\$6,375.60
		LLNL Project Management		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,800.00	\$0.00	\$0.00	\$0.00
3075	1.3.1.1.2.1	Engr	LLNL	B&H	1	1 wk	\$2,080.00	\$0.00	\$0.00	\$2,080.00	\$2,038.40	\$617.76	\$4,736.16
		LLNL Mech. Fab: Assembly Tech		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,080.00	\$0.00	\$0.00	\$0.00
3076	1.3.1.1.2.1	Quotation	LLNL	ED&I	1	1 wk	\$2,520.00	\$0.00	\$0.00	\$2,520.00	\$2,469.60	\$748.44	\$5,738.04
		LLNL PCD:Coordinator Associate		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,520.00	\$0.00	\$0.00	\$0.00
3077	1.3.1.1.2.1	Design	LLNL	ED&I	1	2 wks	\$4,160.00	\$0.00	\$0.00	\$4,160.00	\$4,076.80	\$1,235.52	\$9,472.32
		LLNL Mech Drafting/Design		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,160.00	\$0.00	\$0.00	\$0.00
3078	1.3.1.1.2.2	Isolation valve-w/ Be window	LLNL		0	1 wk	\$2,520.00	\$0.00	\$0.00	\$2,520.00	\$2,469.60	\$1,247.40	\$6,237.00
3079	1.3.1.1.2.2	Engineering	LLNL	ED&I	2	1 wk	\$2,520.00	\$0.00	\$0.00	\$2,520.00	\$2,469.60	\$1,247.40	\$6,237.00
		LLNL Mechanical Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,520.00	\$0.00	\$0.00	\$0.00
3080	1.3.1.1.2.3		LLNL		0	14 wks	\$30,880.00	\$0.00	\$0.00	\$30,880.00	\$30,262.40	\$19,902.96	\$81,045.36
3081	1.3.1.1.2.3		LLNL	ED&I	3	1 wk	\$2,520.00	\$0.00	\$0.00	\$2,520.00	\$2,469.60	' '	\$6,735.96
	1.011112.0	LLNL Mechanical Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,520.00	\$0.00		\$0.00
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3082	1.3.1.1.2.3		LLNL	ED&I	2	3 wks	\$7,560.00	\$0.00	\$0.00	\$7,560.00	\$7,408.80		\$18,711.00
		LLNL Mechanical Engineer		ED&I	0	3 wks	\$0.00	\$0.00	\$0.00	\$7,560.00	\$0.00		\$0.00
3083	1.3.1.1.2.3		LLNL	ED&I	3	10 wks	\$20,800.00	\$0.00	\$0.00	\$20,800.00	\$20,384.00		\$55,598.40
		LLNL Mech Drafting/Design		ED&I	0	10 wks	\$0.00	\$0.00	\$0.00	\$20,800.00	\$0.00		\$0.00
3084	1.3.1.1.2.4	Vacuum systems-Elect/controls	LLNL		0	44 wks	\$103,840.00	\$0.00	\$0.00	\$103,840.00	\$101,763.20	\$51,400.80	\$257,004.00
3085	1.3.1.1.2.4	Electr. Engr	LLNL	ED&I	2	12 wks	\$30,240.00	\$0.00	\$0.00	\$30,240.00	\$29,635.20	\$14,968.80	\$74,844.00

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ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		LLNL Klystron: Engineer		ED&I	0	12 wks	\$0.00	\$0.00	\$0.00	\$30,240.00	\$0.00	\$0.00	\$0.0
3086	1.3.1.1.2.4	Controls engr	LLNL	B&H	2	16 wks	\$33,920.00	\$0.00	\$0.00	\$33,920.00	\$33,241.60	\$16,790.40	\$83,952.0
		LLNL Controls: Technician		B&H	0	16 wks	\$0.00	\$0.00	\$0.00	\$33,920.00	\$0.00	\$0.00	\$0.0
3087	1.3.1.1.2.4	Electr. Design	LLNL	ED&I	2	16 wks	\$39,680.00	\$0.00	\$0.00	\$39,680.00	\$38,886.40	\$19,641.60	\$98,208.0
		LLNL Electrical Engineer		ED&I	0	16 wks	\$0.00	\$0.00	\$0.00	\$39,680.00	\$0.00	\$0.00	\$0.0
3088	1.3.1.1.2.5	Engr oversight/mgt	LLNL		0	243.75 wks	\$562,250.00	\$0.00	\$0.00	\$562,250.00	\$551,005.00	\$166,988.25	\$1,280,243.2
3089	1.3.1.1.2.5	Vac Engr	LLNL	B&H	1	81.25 wks	\$185,250.00	\$0.00	\$0.00	\$185,250.00	\$181,545.00	\$55,019.25	\$421,814.2
		LLNL Mech. Fab: Plating & Cleaning		B&H	0	81.25 wks	\$0.00	\$0.00	\$0.00	\$185,250.00	\$0.00	\$0.00	\$0.0
3090	1.3.1.1.2.5	Controls engr	LLNL	B&H	1	81.25 wks	\$172,250.00	\$0.00	\$0.00	\$172,250.00	\$168,805.00	\$51,158.25	\$392,213.2
		LLNL Controls: Technician		B&H	0	81.25 wks	\$0.00	\$0.00	\$0.00	\$172,250.00	\$0.00	\$0.00	\$0.0
3091	1.3.1.1.2.5	Electr. Engr	LLNL	ED&I	1	81.25 wks	\$204,750.00	\$0.00	\$0.00	\$204,750.00	\$200,655.00	\$60,810.75	\$466,215.7
		LLNL Klystron: Engineer		ED&I	0	81.25 wks	\$0.00	\$0.00	\$0.00	\$204,750.00	\$0.00	\$0.00	\$0.0
3092	1.3.1.1.3	Facility Optics			0	227.6 wks	\$583,220.00	\$0.00	\$0.00	\$583,220.00	\$571,555.60	\$291,975.16	\$1,446,750.7
3093	1.3.1.1.3.1	Fixed Masks	LLNL		0	17.6 wks	\$39,104.00	\$0.00	\$0.00	\$39,104.00	\$38,321.92	\$19,356.48	\$96,782.4
3094	1.3.1.1.3.1	Specification	LLNL	ED&I	2	1 wk	\$2,800.00	\$0.00	\$0.00	\$2,800.00	\$2,744.00	\$1,386.00	\$6,930.0
	1.0.11110.1	LLNL Physicist - Senior Scientist		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,800.00	\$0.00	\$0.00	\$0.0
		·	LLNL				\$2.520.00					.	
3095	1.3.1.1.3.1	engineering	LLNL	ED&I	2	1 wk		\$0.00	\$0.00	\$2,520.00	\$2,469.60	\$1,247.40	\$6,237.0
		LLNL Mechanical Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,520.00	\$0.00	\$0.00	\$0.0
3096	1.3.1.1.3.1	Quotation	LLNL	ED&I	2	1 wk	\$2,520.00	\$0.00	\$0.00	\$2,520.00	\$2,469.60	\$1,247.40	\$6,237.0
		LLNL PCD:Coordinator Associate		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,520.00	\$0.00	\$0.00	\$0.0
3097	1.3.1.1.3.1	Hardware unit 1	LLNL	ED&I	2	2 wks	\$5,040.00	\$0.00	\$0.00	\$5,040.00	\$4,939.20	\$2,494.80	\$12,474.0
		LLNL Mechanical Engineer		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$5,040.00	\$0.00	\$0.00	\$0.0
3098	1.3.1.1.3.1	Characterization unit 1	LLNL	ED&I	2	2 wks	\$3,040.00	\$0.00	\$0.00	\$3,040.00	\$2,979.20	\$1,504.80	\$7,524.0
		LLNL Physicist - Post Doc		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$3,040.00	\$0.00	\$0.00	\$0.0
3099	1.3.1.1.3.1	Test Spec unit 1	LLNL	ED&I	2	1 wk	\$3,440.00	\$0.00	\$0.00	\$3,440.00	\$3,371.20	\$1,702.80	\$8,514.0
		LLNL Precision Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$3,440.00	\$0.00	\$0.00	\$0.0
3100	1.3.1.1.3.1	Beamline test unit 1	LLNL	ED&I	2	1 wk	\$1,520.00	\$0.00	\$0.00	\$1,520.00	\$1,489.60	\$752.40	\$3,762.0
		LLNL Physicist - Post Doc		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$1,520.00	\$0.00	\$0.00	\$0.0
3101	1.3.1.1.3.1	Beamline test unit 1	LLNL	ED&I	2	1 wk	\$2,160.00	\$0.00	\$0.00	\$2,160.00	\$2,116.80	\$1,069.20	\$5,346.0
		LLNL Physicist -Scientist		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,160.00	\$0.00	\$0.00	\$0.0
2402	121121	·	LLNL	ED&I			\$5,040.00		\$0.00	\$5,040.00		\$2,494.80	\$12,474.0
3102	1.3.1.1.3.1	Hardware unit 2	LLINL		2	2 wks		\$0.00			\$4,939.20		
		LLNL Mechanical Engineer		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$5,040.00	\$0.00	\$0.00	\$0.0
3103	1.3.1.1.3.1	Characterization unit 2	LLNL	ED&I	2	1 wk	\$1,520.00	\$0.00	\$0.00	\$1,520.00	\$1,489.60	\$752.40	\$3,762.0
		LLNL Physicist - Post Doc		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$1,520.00	\$0.00	\$0.00	\$0.0
3104	1.3.1.1.3.1	Beamline test unit 2	LLNL	ED&I	2	0.4 wks	\$608.00	\$0.00	\$0.00	\$608.00	\$595.84	\$300.96	\$1,504.8

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ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		LLNL Physicist - Post Doc		ED&I	0	0.4 wks	\$0.00	\$0.00	\$0.00	\$608.00	\$0.00	\$0.00	\$0.0
105	1.3.1.1.3.1	Beamline test unit 2	LLNL	ED&I	2	0.4 wks	\$864.00	\$0.00	\$0.00	\$864.00	\$846.72	\$427.68	\$2,138.4
		LLNL Physicist -Scientist		ED&I	0	0.4 wks	\$0.00	\$0.00	\$0.00	\$864.00	\$0.00	\$0.00	\$0.0
106	1.3.1.1.3.1	Hardware unit 3	LLNL	ED&I	2	2 wks	\$5,040.00	\$0.00	\$0.00	\$5,040.00	\$4,939.20	\$2,494.80	\$12,474.0
\neg		LLNL Mechanical Engineer		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$5,040.00	\$0.00	\$0.00	\$0.
107	1.3.1.1.3.1	Characterization unit 3	LLNL	ED&I	2	1 wk	\$1,520.00	\$0.00	\$0.00	\$1,520.00	\$1,489.60	\$752.40	\$3,762.
\dashv		LLNL Physicist - Post Doc		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$1,520.00	\$0.00	\$0.00	\$0.
108	1.3.1.1.3.1	Beamline test unit 3	LLNL	ED&I	2	0.4 wks	\$608.00	\$0.00	\$0.00	\$608.00	\$595.84	\$300.96	\$1,504
-		LLNL Physicist - Post Doc		ED&I	0	0.4 wks	\$0.00	\$0.00	\$0.00	\$608.00	\$0.00	\$0.00	\$0.
109	1.3.1.1.3.1	Beamline test unit 3	LLNL	ED&I	2	0.4 wks	\$864.00	\$0.00	\$0.00	\$864.00	\$846.72	\$427.68	\$2,138
_		LLNL Physicist -Scientist		ED&I	0	0.4 wks	\$0.00	\$0.00	\$0.00	\$864.00	\$0.00	\$0.00	\$0.
10	1.3.1.1.3.2	Slits/Collimator A	LLNL		0	29 wks	\$72,980.00	\$0.00	\$0.00	\$72,980.00	\$71,520.40	\$30,054.42	\$174,554.
111	1.3.1.1.3.2	Precision motion Engr	LLNL	ED&I	2	3 wks	\$10,320.00	\$0.00	\$0.00	\$10,320.00	\$10,113.60	\$5,108.40	\$25,542
\dashv		LLNL Precision Engineer		ED&I	0	3 wks	\$0.00	\$0.00	\$0.00	\$10,320.00	\$0.00	\$0.00	\$0
12	1.3.1.1.3.2	Precision motion Design	LLNL	ED&I	2	8 wks	\$16,640.00	\$0.00	\$0.00	\$16,640.00	\$16,307.20	\$8,236.80	\$41,184
_		LLNL Mech Drafting/Design		ED&I	0	8 wks	\$0.00	\$0.00	\$0.00	\$16,640.00	\$0.00	\$0.00	\$0
13	1.3.1.1.3.2		LLNL	ED&I	1	2 wks	\$5,600.00	\$0.00	\$0.00	\$5,600.00	\$5,488.00		\$12,751
		LLNL Physicist - Senior Scientist		ED&I		2 wks	\$0.00	\$0.00	\$0.00	\$5,600.00	\$0.00		\$0
114	1.3.1.1.3.2	•	LLNL	ED&I	1	2 wks	\$6.880.00	\$0.00	\$0.00	\$6,880.00	\$6,742.40		\$15,665
	1.3.1.1.3.2		LLINE	ED&I	'		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		\$0.00	\$6,880.00			
		LLNL Precision Engineer			0	2 wks	\$0.00	\$0.00			\$0.00		\$0
115	1.3.1.1.3.2		LLNL	ED&I	1	0.5 wks	\$1,260.00	\$0.00	\$0.00	\$1,260.00	\$1,234.80		\$2,869
		LLNL PCD:Coordinator Associate		ED&I	0	0.5 wks	\$0.00	\$0.00	\$0.00	\$1,260.00	\$0.00		\$0
116	1.3.1.1.3.2	·	LLNL	ED&I	2	3 wks	\$7,680.00	\$0.00	\$0.00	\$7,680.00	\$7,526.40		\$19,008
		LLNL Controls: Engineer		ED&I	0	3 wks	\$0.00	\$0.00	\$0.00	\$7,680.00	\$0.00	\$0.00	\$0
117	1.3.1.1.3.2	Controls and Electronics Design	LLNL	B&H	2	2 wks	\$4,240.00	\$0.00	\$0.00	\$4,240.00	\$4,155.20	\$2,098.80	\$10,494
		LLNL Controls: Technician		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,240.00	\$0.00	\$0.00	\$0
118	1.3.1.1.3.2	Test Specification	LLNL	ED&I	2	1 wk	\$3,440.00	\$0.00	\$0.00	\$3,440.00	\$3,371.20	\$1,702.80	\$8,514
		LLNL Precision Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$3,440.00	\$0.00	\$0.00	\$0
19	1.3.1.1.3.2	Tank Design	LLNL	ED&I	1	2.5 wks	\$5,200.00	\$0.00	\$0.00	\$5,200.00	\$5,096.00	\$1,544.40	\$11,840
\dashv		LLNL Mech Drafting/Design		ED&I	0	2.5 wks	\$0.00	\$0.00	\$0.00	\$5,200.00	\$0.00	\$0.00	\$0
20	1.3.1.1.3.2	Vacuum Design	LLNL	ED&I	1	2 wks	\$5,040.00	\$0.00	\$0.00	\$5,040.00	\$4,939.20	\$1,496.88	\$11,476
\dashv		LLNL AD: Mech/Vacuum Engineer		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$5,040.00	\$0.00	\$0.00	\$0
121	1.3.1.1.3.2	Stand Design	LLNL	ED&I	1	2 wks	\$4,160.00	\$0.00	\$0.00	\$4,160.00	\$4,076.80	\$1,235.52	\$9,472
\dashv		LLNL Mech Drafting/Design		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,160.00	\$0.00	\$0.00	\$0
122	1.3.1.1.3.2	Stand Engr	LLNL	ED&I	1	1 wk	\$2,520.00	\$0.00	\$0.00	\$2.520.00	\$2,469.60	\$748.44	\$5,738

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ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		LLNL Mechanical Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,520.00	\$0.00	\$0.00	\$0.0
3123	1.3.1.1.3.3	Slits/Collimator B	LLNL		0	10.5 wks	\$26,732.00	\$0.00	\$0.00	\$26,732.00	\$26,197.36	\$10,966.43	\$63,895.7
3124	1.3.1.1.3.3	Precision motion Engr	LLNL	ED&I	2	1 wk	\$3,440.00	\$0.00	\$0.00	\$3,440.00	\$3,371.20	\$1,702.80	\$8,514.0
		LLNL Precision Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$3,440.00	\$0.00	\$0.00	\$0.0
3125	1.3.1.1.3.3	Precision motion Design	LLNL	ED&I	2	2 wks	\$4,160.00	\$0.00	\$0.00	\$4,160.00	\$4,076.80	\$2,059.20	\$10,296.0
		LLNL Mech Drafting/Design		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,160.00	\$0.00	\$0.00	\$0.0
126	1.3.1.1.3.3	Jaws Specification	LLNL	ED&I	2	1 wk	\$2,800.00	\$0.00	\$0.00	\$2,800.00	\$2,744.00	\$1,386.00	\$6,930.0
		LLNL Physicist - Senior Scientist		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,800.00	\$0.00	\$0.00	\$0.0
127	1.3.1.1.3.3	Jaws engineering	LLNL	ED&I	1	1 wk	\$3,440.00	\$0.00	\$0.00	\$3,440.00	\$3,371.20	\$1,021.68	\$7,832.8
		LLNL Precision Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$3,440.00	\$0.00	\$0.00	\$0.0
128	1.3.1.1.3.3	Jaws Quotation	LLNL	ED&I	1	0.5 wks	\$1,260.00	\$0.00	\$0.00	\$1,260.00	\$1,234.80	\$374.22	\$2,869.0
		LLNL PCD:Coordinator Associate		ED&I	0	0.5 wks	\$0.00	\$0.00	\$0.00	\$1,260.00	\$0.00	\$0.00	\$0.0
129	1.3.1.1.3.3	Controls and Electronics Engr.	LLNL	ED&I	1	1 wk	\$2,560.00	\$0.00	\$0.00	\$2,560.00	\$2,508.80	\$760.32	\$5,829.1
		LLNL Controls: Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,560.00	\$0.00	\$0.00	\$0.0
130	1.3.1.1.3.3	Controls and Electronics Design	LLNL	B&H	2	1 wk	\$2,120.00	\$0.00	\$0.00	\$2,120.00	\$2,077.60	\$1,049.40	\$5,247.0
		LLNL Controls: Technician		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,120.00	\$0.00	\$0.00	\$0.
131	1.3.1.1.3.3	Test Specification	LLNL	ED&I	2	0.2 wks	\$688.00	\$0.00	\$0.00	\$688.00	\$674.24	\$340.56	\$1,702.8
		LLNL Precision Engineer		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$688.00	\$0.00	\$0.00	\$0.0
132	1.3.1.1.3.3	Tank Design	LLNL	ED&I	2	1 wk	\$2,080.00	\$0.00	\$0.00	\$2,080.00	\$2,038.40	\$1,029.60	\$5,148.0
		- LLNL Mech Drafting/Design		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,080.00	\$0.00	\$0.00	\$0.0
133	1.3.1.1.3.3		LLNL	ED&I	1	1 wk	\$2,520.00	\$0.00	\$0.00	\$2,520.00	\$2,469.60	\$748.44	\$5,738.
	1.0.1.10.0	LLNL AD: Mech/Vacuum Engineer	22.12	ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,520.00	\$0.00	\$0.00	\$0.0
134	1.3.1.1.3.3	, and the second se	LLNL	ED&I	1	0.4 wks	\$832.00	\$0.00	\$0.00	\$832.00	\$815.36	\$247.10	\$1,894.4
1134	1.3.1.1.3.3	Stand Design LLNL Mech Drafting/Design	LLINE	ED&I	0	0.4 wks	\$0.00	\$0.00	\$0.00	\$832.00	\$0.00	\$0.00	\$0.0
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135	1.3.1.1.3.3	, and the second	LLNL	ED&I	1	0.4 wks	\$832.00	\$0.00	\$0.00	\$832.00	\$815.36	\$247.10	\$1,894.4
		LLNL Mech Drafting/Design		ED&I	0	0.4 wks	\$0.00	\$0.00	\$0.00	\$832.00	\$0.00	\$0.00	\$0.0
136	1.3.1.1.3.4	Gas Attenuator	LLNL		0	101.5 wks	\$233,520.00	\$0.00	\$0.00	\$233,520.00	\$228,849.60	\$129,337.56	\$591,707.1
137	1.3.1.1.3.4	PDR Theory	LLNL	ED&I	3	8 wks	\$17,280.00	\$0.00	\$0.00	\$17,280.00	\$16,934.40	\$11,975.04	\$46,189.
		LLNL Physicist -Scientist		ED&I	0	8 wks	\$0.00	\$0.00	\$0.00	\$17,280.00	\$0.00	\$0.00	\$0.0
138	1.3.1.1.3.4	PDR Engineering EE	LLNL	ED&I	2	2 wks	\$4,960.00	\$0.00	\$0.00	\$4,960.00	\$4,860.80	\$2,455.20	\$12,276.
		LLNL Electrical Engineer		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,960.00	\$0.00	\$0.00	\$0.
139	1.3.1.1.3.4	PDR Engineering ME	LLNL	ED&I	4	4 wks	\$10,080.00	\$0.00	\$0.00	\$10,080.00	\$9,878.40	\$9,979.20	\$29,937.
		LLNL Mechanical Engineer		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$10,080.00	\$0.00	\$0.00	\$0.0
140	1.3.1.1.3.4	PDR Drafting ME	LLNL	ED&I	1	2 wks	\$4,160.00	\$0.00	\$0.00	\$4,160.00	\$4,076.80	\$1,235.52	\$9,472.
		LLNL Mech Drafting/Design		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,160.00	\$0.00	\$0.00	\$0.0

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ID		Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
141	1.3.1.1.3.4	PDR Drafting EE	LLNL	ED&I	1	1 wk	\$2,080.00	\$0.00	\$0.00	\$2,080.00	\$2,038.40	\$617.76	\$4,736
\dashv		LLNL Mech Drafting/Design		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,080.00	\$0.00	\$0.00	\$0.
42	1.3.1.1.3.4	FDR Theory	LLNL	ED&I	3	8 wks	\$17,280.00	\$0.00	\$0.00	\$17,280.00	\$16,934.40	\$11,975.04	\$46,189
\dashv		LLNL Physicist -Scientist		ED&I	0	8 wks	\$0.00	\$0.00	\$0.00	\$17,280.00	\$0.00	\$0.00	\$0
43	1.3.1.1.3.4	FDR Engineering EE	LLNL	ED&I	2	2 wks	\$4,960.00	\$0.00	\$0.00	\$4,960.00	\$4,860.80	\$2,455.20	\$12,276
\dashv		LLNL Electrical Engineer		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,960.00	\$0.00	\$0.00	\$0
44	1.3.1.1.3.4	FDR Engineering ME	LLNL	ED&I	4	4 wks	\$10,080.00	\$0.00	\$0.00	\$10,080.00	\$9,878.40	\$9,979.20	\$29,937
\dashv		LLNL Mechanical Engineer		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$10,080.00	\$0.00	\$0.00	\$0
45	1.3.1.1.3.4	FDR Drafting ME	LLNL	ED&I	4	2 wks	\$4,160.00	\$0.00	\$0.00	\$4,160.00	\$4,076.80	\$4,118.40	\$12,355
\dashv		LLNL Mech Drafting/Design		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,160.00	\$0.00	\$0.00	\$0
46	1.3.1.1.3.4	FDR Drafting EE	LLNL	ED&I	1	1 wk	\$2,080.00	\$0.00	\$0.00	\$2,080.00	\$2,038.40	\$617.76	\$4,736
\dashv		LLNL Mech Drafting/Design		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,080.00	\$0.00	\$0.00	\$0
47	1.3.1.1.3.4	Safety Note Gas/Pressure Analysis	LLNL	ED&I	2	4 wks	\$10,080.00	\$0.00	\$0.00	\$10,080.00	\$9,878.40	\$4,989.60	\$24,94
\dashv		LLNL Mechanical Engineer		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$10,080.00	\$0.00	\$0.00	\$0
48	1.3.1.1.3.4	Safety Note Electrical Safety	LLNL	ED&I	2	4 wks	\$9,920.00	\$0.00	\$0.00	\$9,920.00	\$9,721.60	\$4,910.40	\$24,55
\dashv		LLNL Electrical Engineer		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$9,920.00	\$0.00	\$0.00	\$
49	1.3.1.1.3.4	Safety Note Earthquake	LLNL	ED&I	2	4 wks	\$10,080.00	\$0.00	\$0.00	\$10,080.00	\$9,878.40	\$4,989.60	\$24,94
\dashv		LLNL Mechanical Engineer		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$10,080.00	\$0.00	\$0.00	\$6
50	1.3.1.1.3.4	Safety Note Documentation	LLNL	ED&I	2	4 wks	\$10,080.00	\$0.00	\$0.00	\$10,080.00	\$9,878.40	\$4,989.60	\$24,94
\dashv		LLNL Mechanical Engineer		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$10,080.00	\$0.00	\$0.00	\$
51	1.3.1.1.3.4	Safety Note Drafting	LLNL	ED&I	2	4 wks	\$8,320.00	\$0.00	\$0.00	\$8,320.00	\$8,153.60	\$4,118.40	\$20,59
		LLNL Mech Drafting/Design		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$8,320.00	\$0.00	\$0.00	\$
52	1.3.1.1.3.4	Chamber Engineering	LLNL	ED&I	4	3 wks	\$7,560.00	\$0.00	\$0.00	\$7,560.00	\$7,408.80	\$7,484.40	\$22,45
\dashv		LLNL Mechanical Engineer		ED&I	0	3 wks	\$0.00	\$0.00	\$0.00	\$7,560.00	\$0.00	\$0.00	\$6
53	1.3.1.1.3.4	Chamber Drafting ME	LLNL	ED&I	1	2 wks	\$4,160.00	\$0.00	\$0.00	\$4,160.00	\$4,076.80	\$1,235.52	\$9,47
\dashv		LLNL Mech Drafting/Design		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,160.00	\$0.00	\$0.00	\$6
54	1.3.1.1.3.4	Chamber Drafting EE	LLNL	ED&I	1	2 wks	\$4,160.00	\$0.00	\$0.00	\$4,160.00	\$4,076.80	\$1,235.52	\$9,47
\dashv		LLNL Mech Drafting/Design		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,160.00	\$0.00	\$0.00	\$6
55	1.3.1.1.3.4	Venture Engineering	LLNL	ED&I	4	2 wks	\$5,040.00	\$0.00	\$0.00	\$5,040.00	\$4,939.20	\$4,989.60	\$14,96
\dashv		LLNL Mechanical Engineer		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$5,040.00	\$0.00	\$0.00	\$
56	1.3.1.1.3.4	Venture Drafting ME	LLNL	ED&I	3	2.5 wks	\$5,200.00	\$0.00	\$0.00	\$5,200.00	\$5,096.00	\$3,603.60	\$13,89
\dashv		LLNL Mech Drafting/Design		ED&I	0	2.5 wks	\$0.00	\$0.00	\$0.00	\$5,200.00	\$0.00	\$0.00	\$
57	1.3.1.1.3.4	Turbo pump Engineering	LLNL	ED&I	1	2 wks	\$5,040.00	\$0.00	\$0.00	\$5,040.00	\$4,939.20	\$1,496.88	\$11,47
\dashv		LLNL Mechanical Engineer		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$5,040.00	\$0.00	\$0.00	\$
58	1.3.1.1.3.4	Turbo pump Drafting ME	LLNL	ED&I	1	1 wk	\$2,080.00	\$0.00	\$0.00	\$2,080.00	\$2,038.40	\$617.76	\$4,73

ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		LLNL Mech Drafting/Design		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,080.00	\$0.00	\$0.00	\$0.0
159	1.3.1.1.3.4	Turbo pump Drafting EE	LLNL	ED&I	1	2 wks	\$4,160.00	\$0.00	\$0.00	\$4,160.00	\$4,076.80	\$1,235.52	\$9,472.
		LLNL Mech Drafting/Design		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,160.00	\$0.00	\$0.00	\$0.
160	1.3.1.1.3.4	Dry Pump Engineering	LLNL	ED&I	1	1 wk	\$2,520.00	\$0.00	\$0.00	\$2,520.00	\$2,469.60	\$748.44	\$5,738.
		LLNL Mechanical Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,520.00	\$0.00	\$0.00	\$0.
161	1.3.1.1.3.4	Dry Pump Drafting ME	LLNL	ED&I	1	1 wk	\$2,080.00	\$0.00	\$0.00	\$2,080.00	\$2,038.40	\$617.76	\$4,736.
		LLNL Mech Drafting/Design		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,080.00	\$0.00	\$0.00	\$0.
162	1.3.1.1.3.4	Storage Tank Engineering	LLNL	ED&I	1	3 wks	\$7,560.00	\$0.00	\$0.00	\$7,560.00	\$7,408.80	\$2,245.32	\$17,214.
		LLNL Mechanical Engineer		ED&I	0	3 wks	\$0.00	\$0.00	\$0.00	\$7,560.00	\$0.00	\$0.00	\$0.
163	1.3.1.1.3.4	Storage Tank Drafting ME	LLNL	ED&I	1	1 wk	\$2,080.00	\$0.00	\$0.00	\$2,080.00	\$2,038.40	\$617.76	\$4,736.
		LLNL Mech Drafting/Design		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,080.00	\$0.00	\$0.00	\$0.
164	1.3.1.1.3.4	Gast Pump Engineering	LLNL	ED&I	1	1 wk	\$2,520.00	\$0.00	\$0.00	\$2,520.00	\$2,469.60	\$748.44	\$5,738.
		LLNL Mechanical Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,520.00	\$0.00	\$0.00	\$0.
165	1.3.1.1.3.4	Gast Pump Drafting ME	LLNL	ED&I	1	1 wk	\$2,080.00	\$0.00	\$0.00	\$2,080.00	\$2,038.40	\$617.76	\$4,736
\dashv		LLNL Mech Drafting/Design		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,080.00	\$0.00	\$0.00	\$0.
166	1.3.1.1.3.4	Controls Engineering	LLNL	ED&I	2	5 wks	\$12,600.00	\$0.00	\$0.00	\$12,600.00	\$12,348.00	\$6,237.00	\$31,185
-		LLNL Mechanical Engineer		ED&I	0	5 wks	\$0.00	\$0.00	\$0.00	\$12,600.00	\$0.00	\$0.00	\$0.
167	1.3.1.1.3.4	Controls Drafting ME	LLNL	ED&I	2	3 wks	\$6,240.00	\$0.00	\$0.00	\$6,240.00	\$6,115.20	\$3,088.80	\$15,444.
		LLNL Mech Drafting/Design		ED&I	0	3 wks	\$0.00	\$0.00	\$0.00	\$6,240.00	\$0.00	\$0.00	\$0.
3168	1.3.1.1.3.4	Controls Drafting EE	LLNL	ED&I	2	4 wks	\$8,320.00	\$0.00	\$0.00	\$8,320.00	\$8,153.60	\$4,118.40	\$20,592.
		LLNL Mech Drafting/Design		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$8,320.00	\$0.00	\$0.00	\$0.
3169	1.3.1.1.3.4	Controls Programming	LLNL	ED&I	2	4 wks	\$8,640.00	\$0.00	\$0.00	\$8,640.00	\$8,467.20	\$4,276.80	\$21,384.
		LLNL Physicist -Scientist		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$8,640.00	\$0.00	\$0.00	\$0.
3170	1.3.1.1.3.4	GreenField Compresser Engineering	LLNL	ED&I	1	3 wks	\$7,560.00	\$0.00	\$0.00	\$7,560.00	\$7,408.80	\$2,245.32	\$17,214.
		LLNL Mechanical Engineer		ED&I	0	3 wks	\$0.00	\$0.00	\$0.00	\$7,560.00	\$0.00	\$0.00	\$0.
171	1.3.1.1.3.4	GreenField Compresser Drafting ME	LLNL	ED&I	1	1 wk	\$2,080.00	\$0.00	\$0.00	\$2,080.00	\$2,038.40	\$617.76	\$4,736.
		LLNL Mech Drafting/Design		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,080.00	\$0.00	\$0.00	\$0.
3172	1.3.1.1.3.4	GreenField Compresser Drafting EE	LLNL	ED&I	1	3 wks	\$6,240.00	\$0.00	\$0.00	\$6,240.00	\$6,115.20	\$1,853.28	\$14,208.
		LLNL Mech Drafting/Design		ED&I	0	3 wks	\$0.00	\$0.00	\$0.00	\$6,240.00	\$0.00	\$0.00	\$0.
173	1.3.1.1.3.5	Apertures	LLNL		0	9 wks	\$25,048.00	\$0.00	\$0.00	\$25,048.00	\$24,547.04	\$12,398.76	\$61,993.
174	1.3.1.1.3.5	Specification	LLNL	ED&I	2	2 wks	\$5,600.00	\$0.00	\$0.00	\$5,600.00	\$5,488.00	\$2,772.00	\$13,860.
		LLNL Physicist - Senior Scientist		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$5,600.00	\$0.00	\$0.00	\$0.
3175	1.3.1.1.3.5	engineering	LLNL	ED&I	2	4 wks	\$10,080.00	\$0.00	\$0.00	\$10,080.00	\$9,878.40	\$4,989.60	\$24,948.
		LLNL Mechanical Engineer		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$10,080.00	\$0.00	\$0.00	\$0.
3176	1.3.1.1.3.5	Quotation	LLNL	ED&I	2	0.2 wks	\$504.00	\$0.00	\$0.00	\$504.00	\$493.92	\$249.48	\$1,247.

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ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
	OWEG	LLNL PCD:Coordinator Associate	000	ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$504.00	\$0.00	\$0.00	\$0.0
177	1.3.1.1.3.5	Test Spec unit 1	LLNL	ED&I	2	1 wk	\$3,440.00	\$0.00	\$0.00	\$3,440.00	\$3,371.20	\$1,702.80	\$8,514.0
		LLNL Precision Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$3,440.00	\$0.00	\$0.00	\$0.
178	1.3.1.1.3.5	Beamline test unit 1	LLNL	ED&I	2	0.4 wks	\$608.00	\$0.00	\$0.00	\$608.00	\$595.84	\$300.96	\$1,504.
		LLNL Physicist - Post Doc		ED&I	0	0.4 wks	\$0.00	\$0.00	\$0.00	\$608.00	\$0.00	\$0.00	\$0.
179	1.3.1.1.3.5	Beamline test unit 1	LLNL	ED&I	2	0.4 wks	\$1,376.00	\$0.00	\$0.00	\$1,376.00	\$1,348.48	\$681.12	\$3,405
		LLNL Precision Engineer		ED&I	0	0.4 wks	\$0.00	\$0.00	\$0.00	\$1,376.00	\$0.00	\$0.00	\$0.
180	1.3.1.1.3.5	Test Spec unit 2	LLNL	ED&I	2	1 wk	\$3,440.00	\$0.00	\$0.00	\$3,440.00	\$3,371.20	\$1,702.80	\$8,514.
		LLNL Precision Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$3,440.00	\$0.00	\$0.00	\$0.
181	1.3.1.1.3.6	Solid Attenuator	LLNL		0	7 wks	\$20,336.00	\$0.00	\$0.00	\$20,336.00	\$19,929.28	\$10,066.32	\$50,331.
3182	1.3.1.1.3.6	Unit 1 Specification	LLNL	ED&I	2	2 wks	\$5,600.00	\$0.00	\$0.00	\$5,600.00	\$5,488.00	\$2,772.00	\$13,860.
		LLNL Physicist - Senior Scientist		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$5,600.00	\$0.00	\$0.00	\$0.
183	1.3.1.1.3.6	Unit 1 engineering	LLNL	ED&I	2	1 wk	\$2,520.00	\$0.00	\$0.00	\$2,520.00	\$2,469.60	\$1,247.40	\$6,237.
		LLNL Mechanical Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,520.00	\$0.00	\$0.00	\$0.
184	1.3.1.1.3.6	Unit 1 Quotation	LLNL	ED&I	2	1 wk	\$2,520.00	\$0.00	\$0.00	\$2,520.00	\$2,469.60	\$1,247.40	\$6,237
		LLNL PCD:Coordinator Associate		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,520.00	\$0.00	\$0.00	\$0.
185	1.3.1.1.3.6	Unit 1 Test Spec	LLNL	ED&I	2	1 wk	\$3,440.00	\$0.00	\$0.00	\$3,440.00	\$3,371.20	\$1,702.80	\$8,514
		LLNL Precision Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$3,440.00	\$0.00	\$0.00	\$0.
186	1.3.1.1.3.6	Unit 2 Test Spec	LLNL	ED&I	2	0.2 wks	\$688.00	\$0.00	\$0.00	\$688.00	\$674.24	\$340.56	\$1,702
		LLNL Precision Engineer		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$688.00	\$0.00	\$0.00	\$0.
187	1.3.1.1.3.6	Unit 3 Specification	LLNL	ED&I	2	0.4 wks	\$1,120.00	\$0.00	\$0.00	\$1,120.00	\$1,097.60	\$554.40	\$2,772
		LLNL Physicist - Senior Scientist		ED&I	0	0.4 wks	\$0.00	\$0.00	\$0.00	\$1,120.00	\$0.00	\$0.00	\$0.
188	1.3.1.1.3.6	Unit 3 engineering	LLNL	ED&I	2	0.2 wks	\$504.00	\$0.00	\$0.00	\$504.00	\$493.92	\$249.48	\$1,247.
		LLNL Mechanical Engineer		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$504.00	\$0.00	\$0.00	\$0.
3189	1.3.1.1.3.6	Unit 3 Quotation	LLNL	ED&I	2	0.2 wks	\$504.00	\$0.00	\$0.00	\$504.00	\$493.92	\$249.48	\$1,247.
		LLNL PCD:Coordinator Associate		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$504.00	\$0.00	\$0.00	\$0.
190	1.3.1.1.3.6	Unit 3 Test Spec	LLNL	ED&I	2	1 wk	\$3,440.00	\$0.00	\$0.00	\$3,440.00	\$3,371.20	\$1,702.80	\$8,514.
		LLNL Precision Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$3,440.00	\$0.00	\$0.00	\$0.
191	1.3.1.1.3.7	Low Energy Mirror System	LLNL		0	53 wks	\$165,500.00	\$0.00	\$0.00	\$165,500.00	\$162,190.00	\$79,795.19	\$407,485.
192	1.3.1.1.3.7	Precision motion Engr	LLNL	ED&I	2	12 wks	\$41,280.00	\$0.00	\$0.00	\$41,280.00	\$40,454.40	\$20,433.60	\$102,168
\neg		LLNL Precision Engineer		ED&I	0	12 wks	\$0.00	\$0.00	\$0.00	\$41,280.00	\$0.00	\$0.00	\$0.
193	1.3.1.1.3.7	Precision motion Design	LLNL	ED&I	2	20 wks	\$68,800.00	\$0.00	\$0.00	\$68,800.00	\$67,424.00	\$34,056.00	\$170,280
		LLNL Precision Engineer		ED&I	0	20 wks	\$0.00	\$0.00	\$0.00	\$68,800.00	\$0.00	\$0.00	\$0.
194	1.3.1.1.3.7	Optic Specification	LLNL	ED&I	2	2 wks	\$5,600.00	\$0.00	\$0.00	\$5,600.00	\$5,488.00	\$2,772.00	\$13,860
-		LLNL Physicist - Senior Scientist		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$5,600.00	\$0.00	\$0.00	\$0.

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ID		Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
3195	1.3.1.1.3.7	Optic engineering	LLNL	ED&I	2	4 wks	\$13,760.00	\$0.00	\$0.00	\$13,760.00	\$13,484.80	\$6,811.20	\$34,056.0
		LLNL Precision Engineer		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$13,760.00	\$0.00	\$0.00	\$0.0
196	1.3.1.1.3.7	Optic Quotation	LLNL	ED&I	2	1 wk	\$2,520.00	\$0.00	\$0.00	\$2,520.00	\$2,469.60	\$1,247.40	\$6,237.0
		LLNL PCD:Coordinator Associate		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,520.00	\$0.00	\$0.00	\$0.0
197	1.3.1.1.3.7	Controls and Electronics Engr.	LLNL	ED&I	2	3 wks	\$7,680.00	\$0.00	\$0.00	\$7,680.00	\$7,526.40	\$3,801.60	\$19,008.0
		LLNL Controls: Engineer		ED&I	0	3 wks	\$0.00	\$0.00	\$0.00	\$7,680.00	\$0.00	\$0.00	\$0.0
198	1.3.1.1.3.7	Controls and Electronics Design	LLNL	B&H	2	2 wks	\$4,240.00	\$0.00	\$0.00	\$4,240.00	\$4,155.20	\$2,098.80	\$10,494.0
		LLNL Controls: Technician		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,240.00	\$0.00	\$0.00	\$0.0
199	1.3.1.1.3.7	Test Spec	LLNL	ED&I	2	1 wk	\$3,440.00	\$0.00	\$0.00	\$3,440.00	\$3,371.20	\$1,702.80	\$8,514.0
		LLNL Precision Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$3,440.00	\$0.00	\$0.00	\$0.0
200	1.3.1.1.3.7	Tank Design	LLNL	ED&I	1	2.5 wks	\$5,200.00	\$0.00	\$0.00	\$5,200.00	\$5,096.00	\$1,544.40	\$11,840.4
		LLNL Mech Drafting/Design		ED&I	0	2.5 wks	\$0.00	\$0.00	\$0.00	\$5,200.00	\$0.00	\$0.00	\$0.0
201	1.3.1.1.3.7	Tank Fabrication	LLNL	ED&I	2	0.1 wks	\$252.00	\$0.00	\$0.00	\$252.00	\$246.96	\$124.74	\$623.7
	1.0.1.1.0.7	LLNL PCD:Coordinator Associate	LENE	ED&I	0	0.1 wks	\$0.00	\$0.00	\$0.00	\$252.00	\$0.00	\$0.00	\$0.0
200	101107								,,,,,,				
202	1.3.1.1.3.7	Vacuum Design	LLNL	ED&I	1	2 wks	\$5,040.00	\$0.00	\$0.00	\$5,040.00	\$4,939.20	\$1,496.88	\$11,476. -
		LLNL AD: Mech/Vacuum Engineer		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$5,040.00	\$0.00	\$0.00	\$0.
203	1.3.1.1.3.7	Vacuum Pumps	LLNL	ED&I	1	0.2 wks	\$504.00	\$0.00	\$0.00	\$504.00	\$493.92	\$149.69	\$1,147.0
		LLNL PCD:Coordinator Associate		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$504.00	\$0.00	\$0.00	\$0.0
204	1.3.1.1.3.7	Stand Design	LLNL	ED&I	2	2 wks	\$4,160.00	\$0.00	\$0.00	\$4,160.00	\$4,076.80	\$2,059.20	\$10,296.
		LLNL Mech Drafting/Design		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,160.00	\$0.00	\$0.00	\$0.
205	1.3.1.1.3.7	Stand Engr	LLNL	ED&I	2	1 wk	\$2,520.00	\$0.00	\$0.00	\$2,520.00	\$2,469.60	\$1,247.40	\$6,237.
		LLNL Mechanical Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,520.00	\$0.00	\$0.00	\$0.
206	1.3.1.1.3.7	Stand Fabrication	LLNL	ED&I	2	0.2 wks	\$504.00	\$0.00	\$0.00	\$504.00	\$493.92	\$249.48	\$1,247.
		LLNL PCD:Coordinator Associate		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$504.00	\$0.00	\$0.00	\$0.0
207	1.3.1.1.4	End Station Optics			0	118.3 wks	\$283,316.00	\$0.00	\$0.00	\$283,316.00	\$277,649.68	\$139,505.65	\$700,471.3
208	1.3.1.1.4.1	KB Mirror System	LLNL		0	77 wks	\$187,160.00	\$0.00	\$0.00	\$187,160.00	\$183,416.80	\$92,644.20	\$463,221.0
209	1.3.1.1.4.1	Precision Motion Engr	LLNL	ED&I	2	10 wks	\$34,400.00	\$0.00	\$0.00	\$34,400.00	\$33,712.00	\$17,028.00	\$85,140.0
		LLNL Precision Engineer		ED&I	0	10 wks	\$0.00	\$0.00	\$0.00	\$34,400.00	\$0.00	\$0.00	\$0.
210	1.3.1.1.4.1	Precision Motion Design	LLNL	ED&I	2	14 wks	\$29,120.00	\$0.00	\$0.00	\$29,120.00	\$28,537.60	\$14,414.40	\$72,072.
		LLNL Mech Drafting/Design		ED&I	0	14 wks	\$0.00	\$0.00	\$0.00	\$29,120.00	\$0.00	\$0.00	\$0.
211	1.3.1.1.4.1	Optic Specification	LLNL	ED&I	2	5 wks	\$10,800.00	\$0.00	\$0.00	\$10,800.00	\$10,584.00	\$5,346.00	\$26,730.
	1.0.1.1.4.1	LINL Physicist -Scientist		ED&I	0	5 wks	\$0.00	\$0.00	\$0.00	\$10,800.00	\$0.00	\$0.00	\$0.
212	124444	•	LLNL		2				\$0.00				
212	1.3.1.1.4.1	Optic engineering	LLNL	ED&I	-	4 wks	\$13,760.00	\$0.00	****	\$13,760.00	\$13,484.80	\$6,811.20	\$34,056.
		LLNL Precision Engineer		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$13,760.00	\$0.00	\$0.00	\$0.
213	1.3.1.1.4.1	Optic Quotation	LLNL	ED&I	2	1 wk	\$2,520.00	\$0.00	\$0.00	\$2,520.00	\$2,469.60	\$1,247.40	\$6,237.0

ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		LLNL PCD:Coordinator Associate		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,520.00	\$0.00	\$0.00	\$0.0
214	1.3.1.1.4.1	Optic Hardware	LLNL	ED&I	2	2 wks	\$6,880.00	\$0.00	\$0.00	\$6,880.00	\$6,742.40	\$3,405.60	\$17,028.0
		LLNL Precision Engineer		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$6,880.00	\$0.00	\$0.00	\$0.0
215	1.3.1.1.4.1	Optic Characterization	LLNL	ED&I	2	8 wks	\$12,160.00	\$0.00	\$0.00	\$12,160.00	\$11,916.80	\$6,019.20	\$30,096.
		LLNL Physicist - Post Doc		ED&I	0	8 wks	\$0.00	\$0.00	\$0.00	\$12,160.00	\$0.00	\$0.00	\$0.0
216	1.3.1.1.4.1	Optic Characterization	LLNL	ED&I	2	8 wks	\$27,520.00	\$0.00	\$0.00	\$27,520.00	\$26,969.60	\$13,622.40	\$68,112.
		LLNL Precision Engineer		ED&I	0	8 wks	\$0.00	\$0.00	\$0.00	\$27,520.00	\$0.00	\$0.00	\$0.
3217	1.3.1.1.4.1	Controls & Elect Engr.	LLNL	ED&I	2	3 wks	\$7,680.00	\$0.00	\$0.00	\$7,680.00	\$7,526.40	\$3,801.60	\$19,008.
		LLNL Controls: Engineer		ED&I	0	3 wks	\$0.00	\$0.00	\$0.00	\$7,680.00	\$0.00	\$0.00	\$0.
3218	1.3.1.1.4.1	Controls & Elect Design	LLNL	B&H	2	2 wks	\$4,240.00	\$0.00	\$0.00	\$4,240.00	\$4,155.20	\$2,098.80	\$10,494.
$\overline{}$		LLNL Controls: Technician		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,240.00	\$0.00	\$0.00	\$0.
3219	1.3.1.1.4.1	Test Spec	LLNL	ED&I	2	1 wk	\$3,440.00	\$0.00	\$0.00	\$3,440.00	\$3,371.20	\$1,702.80	\$8,514.
\neg		LLNL Precision Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$3,440.00	\$0.00	\$0.00	\$0.
3220	1.3.1.1.4.1	Beamline test	LLNL	ED&I	2	16 wks	\$24,320.00	\$0.00	\$0.00	\$24,320.00	\$23,833.60	\$12,038.40	\$60,192.
		LLNL Physicist - Post Doc		ED&I	0	16 wks	\$0.00	\$0.00	\$0.00	\$24,320.00	\$0.00	\$0.00	\$0.
221	1.3.1.1.4.1	Beamline test	LLNL	ED&I	2	3 wks	\$10,320.00	\$0.00	\$0.00	\$10,320.00	\$10,113.60	\$5,108.40	\$25,542
		LLNL Precision Engineer		ED&I	0	3 wks	\$0.00	\$0.00	\$0.00	\$10,320.00	\$0.00	\$0.00	\$0.
3222	1.3.1.1.4.2	Optics Tank A2 1	LLNL		0	23 wks	\$53,840.00	\$0.00	\$0.00	\$53,840.00	\$52,763.20	\$23,449.54	\$130,052.
3223	1.3.1.1.4.2	Motion & Mech Engr	LLNL	ED&I	2	1 wk	\$3,440.00	\$0.00	\$0.00	\$3,440.00	\$3,371.20	\$1,702.80	\$8,514.
		LLNL Precision Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$3,440.00	\$0.00	\$0.00	\$0.
224	1.3.1.1.4.2	Motion & Mech Design	LLNL	ED&I	2	3 wks	\$6,240.00	\$0.00	\$0.00	\$6,240.00	\$6,115.20	\$3,088.80	\$15,444.
-		LLNL Mech Drafting/Design		ED&I	0	3 wks	\$0.00	\$0.00	\$0.00	\$6,240.00	\$0.00	\$0.00	\$0.
3225	1.3.1.1.4.2	Controls & Elect Engr.	LLNL	ED&I	2	3 wks	\$7,680.00	\$0.00	\$0.00	\$7,680.00	\$7,526.40	\$3,801.60	\$19,008.
-		LLNL Controls: Engineer		ED&I	0	3 wks	\$0.00	\$0.00	\$0.00	\$7,680.00	\$0.00	\$0.00	\$0.0
3226	1.3.1.1.4.2	Controls & Elect Design	LLNL	B&H	2	2 wks	\$4,240.00	\$0.00	\$0.00	\$4,240.00	\$4,155.20	\$2,098.80	\$10,494.
		LLNL Controls: Technician		В&Н	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,240.00	\$0.00	\$0.00	\$0.
227	1.3.1.1.4.2	Test Spec	LLNL	ED&I	2	1 wk	\$3,440.00	\$0.00	\$0.00	\$3,440.00	\$3,371.20	\$1,702.80	\$8,514.
		LLNL Precision Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$3,440.00	\$0.00	\$0.00	\$0.
3228	1.3.1.1.4.2	Beamline test	LLNL	ED&I	2	4 wks	\$6,080.00	\$0.00	\$0.00	\$6,080.00	\$5,958.40	\$3,009.60	\$15,048.
		LLNL Physicist - Post Doc		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$6,080.00	\$0.00	\$0.00	\$0.
229	1.3.1.1.4.2	Beamline test	LLNL	ED&I	1	1 wk	\$3,440.00	\$0.00	\$0.00	\$3,440.00	\$3,371.20	\$1,021.68	\$7,832
-		LLNL Precision Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$3,440.00	\$0.00	\$0.00	\$0.
3230	1.3.1.1.4.2	Tank Design	LLNL	ED&I	2	2.5 wks	\$6,300.00	\$0.00	\$0.00	\$6,300.00	\$6,174.00	\$3,118.50	\$15,592.
-		LLNL Mechanical Engineer		ED&I	0	2.5 wks	\$0.00	\$0.00	\$0.00	\$6,300.00	\$0.00	\$0.00	\$0.
3231	1.3.1.1.4.2	Tank Fabrication	LLNL	ED&I	2	0.1 wks	\$252.00	\$0.00	\$0.00	\$252.00	\$246.96	\$124.74	\$623.

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ID	CWBS	Task Name LLNL PCD:Coordinator Associate	OBS	PHASE ED&I	Risk	Units 0.1 wks	PED (Direct) \$0.00	M&S (Direct)	Labor (Direct)	Direct Cost \$252.00	Overhead Cost \$0.00	Contingency Cost \$0.00	Total Cost \$0.00
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3232	1.3.1.1.4.2		LLNL	B&H	1	2 wks	\$4,160.00	\$0.00	\$0.00	\$4,160.00	\$4,076.80	\$1,235.52	\$9,472.32
		LLNL Mech. Fab: Assembly Tech		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,160.00	\$0.00	\$0.00	\$0.00
3233	1.3.1.1.4.2	Vacuum Pumps	LLNL	ED&I	1	0.2 wks	\$504.00	\$0.00	\$0.00	\$504.00	\$493.92	\$149.69	\$1,147.61
		LLNL PCD:Coordinator Associate		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$504.00	\$0.00	\$0.00	\$0.00
3234	1.3.1.1.4.2	Stand Design	LLNL	ED&I	1	2 wks	\$5,040.00	\$0.00	\$0.00	\$5,040.00	\$4,939.20	\$1,496.88	\$11,476.08
		LLNL Mechanical Engineer		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$5,040.00	\$0.00	\$0.00	\$0.00
3235	1.3.1.1.4.2	Stand Engr	LLNL	ED&I	1	1 wk	\$2,520.00	\$0.00	\$0.00	\$2,520.00	\$2,469.60	\$748.44	\$5,738.04
		LLNL AD: Mech/Vacuum Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,520.00	\$0.00	\$0.00	\$0.00
3236	1.3.1.1.4.2	-	LLNL	ED&I	1	0.2 wks	\$504.00	\$0.00	\$0.00	\$504.00	\$493.92	\$149.69	\$1,147.61
3230	1.3.1.1.4.2		LLINE	ED&I	'								
		LLNL PCD:Coordinator Associate		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$504.00	\$0.00	\$0.00	\$0.00
3237	1.3.1.1.4.3	Optics Tank B2 1	LLNL		0	6.1 wks	\$14,932.00	\$0.00	\$0.00	\$14,932.00	\$14,633.36	\$4,434.80	\$34,000.16
3238	1.3.1.1.4.3	Tank Design	LLNL	ED&I	1	1 wk	\$2,520.00	\$0.00	\$0.00	\$2,520.00	\$2,469.60	\$748.44	\$5,738.04
		LLNL Mechanical Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,520.00	\$0.00	\$0.00	\$0.00
3239	1.3.1.1.4.3	Tank Fabrication	LLNL	ED&I	1	0.1 wks	\$252.00	\$0.00	\$0.00	\$252.00	\$246.96	\$74.84	\$573.80
		LLNL PCD:Coordinator Associate		ED&I	0	0.1 wks	\$0.00	\$0.00	\$0.00	\$252.00	\$0.00	\$0.00	\$0.00
3240	1.3.1.1.4.3	Vacuum Design	LLNL	B&H	1	1 wk	\$2,080.00	\$0.00	\$0.00	\$2,080.00	\$2,038.40	\$617.76	\$4,736.16
		LLNL Mech. Fab: Assembly Tech		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,080.00	\$0.00	\$0.00	\$0.00
3241	1.3.1.1.4.3	Vacuum Pumps	LLNL	ED&I	1	1 wk	\$2,520.00	\$0.00	\$0.00	\$2,520.00	\$2,469.60	\$748.44	\$5,738.04
		LLNL PCD:Coordinator Associate		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,520.00	\$0.00	\$0.00	\$0.00
3242	1.3.1.1.4.3		LLNL	ED&I		1 wk	\$2,520.00	\$0.00	\$0.00	\$2,520.00	\$2,469.60	\$748.44	\$5,738.04
3242	1.3.1.1.4.3	-	LLINL		'								
		LLNL Mechanical Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,520.00	\$0.00	\$0.00	\$0.00
3243	1.3.1.1.4.3	Stand Engr	LLNL	ED&I	1	1 wk	\$2,520.00	\$0.00	\$0.00	\$2,520.00	\$2,469.60	\$748.44	\$5,738.04
		LLNL AD: Mech/Vacuum Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,520.00	\$0.00	\$0.00	\$0.00
3244	1.3.1.1.4.3	Stand Fabrication	LLNL	ED&I	1	1 wk	\$2,520.00	\$0.00	\$0.00	\$2,520.00	\$2,469.60	\$748.44	\$5,738.04
		LLNL PCD:Coordinator Associate		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,520.00	\$0.00	\$0.00	\$0.00
3245	1.3.1.1.4.4	Refractive Lenses	LLNL		0	12.2 wks	\$27,384.00	\$0.00	\$0.00	\$27,384.00	\$26,836.32	\$18,977.11	\$73,197.43
3246	1.3.1.1.4.4	PDR Design and Theory	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
3247	1.3.1.1.4.4	PDR Lens Design	LLNL	ED&I	3	0.2 wks	\$432.00	\$0.00	\$0.00	\$432.00	\$423.36	\$299.38	\$1,154.74
		LLNL Physicist -Scientist		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$432.00	\$0.00	\$0.00	\$0.00
3248	1.3.1.1.4.4	·	LLNL	ED&I	3	0.2 wks	\$432.00	\$0.00	\$0.00	\$432.00	\$423.36	\$299.38	\$1,154.74
) <u>2</u> 40	1.3.1.1.4.4	-	LLINL										
		LLNL Physicist -Scientist		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$432.00	\$0.00	\$0.00	\$0.00
3249	1.3.1.1.4.4		LLNL		3	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
3250	1.3.1.1.4.4	PDR Press	LLNL		3	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
3251	1.3.1.1.4.4	PDR Lens Mount	LLNL		3	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

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ID		Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
3252	1.3.1.1.4.4	PDR Lens Fabrication	LLNL		3	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
3253	1.3.1.1.4.4	PDR ME Drafing	LLNL	ED&I	3	1 wk	\$2,080.00	\$0.00	\$0.00	\$2,080.00	\$2,038.40	\$1,441.44	\$5,559.8
		LLNL Mech Drafting/Design		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,080.00	\$0.00	\$0.00	\$0.0
3254	1.3.1.1.4.4	FDR Lens Design Physics	LLNL	ED&I	3	2 wks	\$4,320.00	\$0.00	\$0.00	\$4,320.00	\$4,233.60	\$2,993.76	\$11,547.3
		LLNL Physicist -Scientist		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,320.00	\$0.00	\$0.00	\$0.0
3255	1.3.1.1.4.4	FDR Lens Testing Physics	LLNL	ED&I	3	1 wk	\$2,160.00	\$0.00	\$0.00	\$2,160.00	\$2,116.80	\$1,496.88	\$5,773.6
		LLNL Physicist -Scientist		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,160.00	\$0.00	\$0.00	\$0.0
3256	1.3.1.1.4.4	FDR Lens Testing EE	LLNL	ED&I	3	0.6 wks	\$1,488.00	\$0.00	\$0.00	\$1,488.00	\$1,458.24	\$1,031.18	\$3,977.4
		LLNL Electrical Engineer		ED&I	0	0.6 wks	\$0.00	\$0.00	\$0.00	\$1,488.00	\$0.00	\$0.00	\$0.0
3257	1.3.1.1.4.4	FDR Lens Testing ME	LLNL	ED&I	3	0.4 wks	\$832.00	\$0.00	\$0.00	\$832.00	\$815.36	\$576.58	\$2,223.9
		LLNL Mech Drafting/Design		ED&I	0	0.4 wks	\$0.00	\$0.00	\$0.00	\$832.00	\$0.00	\$0.00	\$0.0
3258	1.3.1.1.4.4	FDR Diamond Turned Form	LLNL	ED&I	3	0.6 wks	\$1,512.00	\$0.00	\$0.00	\$1,512.00	\$1,481.76	\$1,047.82	\$4,041.5
		LLNL Mechanical Engineer		ED&I	0	0.6 wks	\$0.00	\$0.00	\$0.00	\$1,512.00	\$0.00	\$0.00	\$0.0
3259	1.3.1.1.4.4	FDR Diamond Turning fixture for form ME	LLNL	ED&I	3	0.6 wks	\$1,512.00	\$0.00	\$0.00	\$1,512.00	\$1,481.76	\$1,047.82	\$4,041.5
		LLNL Mechanical Engineer		ED&I	0	0.6 wks	\$0.00	\$0.00	\$0.00	\$1,512.00	\$0.00	\$0.00	\$0.0
3260	1.3.1.1.4.4	FDR Diamond Turned Form Mount ME	LLNL	ED&I	3	0.2 wks	\$504.00	\$0.00	\$0.00	\$504.00	\$493.92		\$1,347.1
0200	1.0.1.1.4.4	LLNL Mechanical Engineer	LEINE	ED&I	0	0.2 wks		\$0.00	\$0.00	\$504.00	\$0.00		\$0.0
3261	1.3.1.1.4.4	FDR Press ME	LLNL	ED&I	3	0.2 wks		\$0.00	\$0.00	\$1,008.00	\$987.84		\$2,694.3
3201	1.3.1.1.4.4	FUR Fless ME LLNL Mechanical Engineer	LLINL	ED&I	0	0.4 wks		\$0.00	\$0.00	\$1,008.00	\$0.00		\$2,694.3
		· ·							, , , , , ,				
3262	1.3.1.1.4.4	FDR Lens ME	LLNL	ED&I	3	0.2 wks	\$504.00		\$0.00	\$504.00	\$493.92		\$1,347.
		LLNL Mechanical Engineer		ED&I	0	0.2 wks		\$0.00	\$0.00	\$504.00	\$0.00		\$0.0
3263	1.3.1.1.4.4	FDR Lens Mount ME	LLNL	ED&I	3	0.6 wks	\$1,512.00	\$0.00	\$0.00	\$1,512.00	\$1,481.76	\$1,047.82	\$4,041.5
		LLNL Mechanical Engineer		ED&I	0	0.6 wks	\$0.00	\$0.00	\$0.00	\$1,512.00	\$0.00	\$0.00	\$0.0
3264	1.3.1.1.4.4	FDR Lens Fabrication ME	LLNL	ED&I	3	0.6 wks	\$1,512.00	\$0.00	\$0.00	\$1,512.00	\$1,481.76	\$1,047.82	\$4,041.5
		LLNL Mechanical Engineer		ED&I	0	0.6 wks	\$0.00	\$0.00	\$0.00	\$1,512.00	\$0.00	\$0.00	\$0.0
3265	1.3.1.1.4.4	FDR Lens Assembly ME	LLNL	ED&I	3	0.2 wks	\$504.00	\$0.00	\$0.00	\$504.00	\$493.92	\$349.27	\$1,347.1
		LLNL Mechanical Engineer		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$504.00	\$0.00	\$0.00	\$0.0
3266	1.3.1.1.4.4	FDR Diamond Turned Form ME Drafing	LLNL	ED&I	3	0.2 wks	\$416.00	\$0.00	\$0.00	\$416.00	\$407.68	\$288.29	\$1,111.9
		LLNL Mech Drafting/Design		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$416.00	\$0.00	\$0.00	\$0.0
3267	1.3.1.1.4.4	FDR Diamond Turning fixture for form ME Drafing	LLNL	ED&I	3	0.6 wks	\$1,248.00	\$0.00	\$0.00	\$1,248.00	\$1,223.04	\$864.86	\$3,335.9
-		LLNL Mech Drafting/Design		ED&I	0	0.6 wks	\$0.00	\$0.00	\$0.00	\$1,248.00	\$0.00	\$0.00	\$0.0
3268	1.3.1.1.4.4	FDR Diamond Turned Form Mount ME Drafing	LLNL	ED&I	3	0.4 wks	\$832.00	\$0.00	\$0.00	\$832.00	\$815.36	\$576.58	\$2,223.9
		LLNL Mech Drafting/Design		ED&I	0	0.4 wks		\$0.00	\$0.00	\$832.00	\$0.00		\$0.0
3269	1.3.1.1.4.4	FDR Press ME Drafing	LLNL	ED&I	3	1 wk		\$0.00	\$0.00	\$2,080.00	\$2,038.40		\$5,559.8
2200		LLNL Mech Drafting/Design	22142	ED&I	0	1 wk		\$0.00	\$0.00	\$2,080.00	\$0.00		\$0.0

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ID		Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
3270	1.3.1.1.4.4	FDR Lens ME Drafing	LLNL	ED&I	3	0.2 wks	\$416.00	\$0.00	\$0.00	\$416.00	\$407.68	\$288.29	\$1,111.9
		LLNL Mech Drafting/Design		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$416.00	\$0.00	\$0.00	\$0.0
271	1.3.1.1.4.4	FDR Lens Mount ME Drafing	LLNL	ED&I	3	0.2 wks	\$416.00	\$0.00	\$0.00	\$416.00	\$407.68	\$288.29	\$1,111.
		LLNL Mech Drafting/Design		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$416.00	\$0.00	\$0.00	\$0.0
272	1.3.1.1.4.4	FDR Lens Fabrication ME Drafing	LLNL	ED&I	3	0.2 wks	\$416.00	\$0.00	\$0.00	\$416.00	\$407.68	\$288.29	\$1,111.
		LLNL Mech Drafting/Design		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$416.00	\$0.00	\$0.00	\$0.0
273	1.3.1.1.4.4	FDR Lens Assembly ME Drafing	LLNL	ED&I	3	0.6 wks	\$1,248.00	\$0.00	\$0.00	\$1,248.00	\$1,223.04	\$864.86	\$3,335.
		LLNL Mech Drafting/Design		ED&I	0	0.6 wks	\$0.00	\$0.00	\$0.00	\$1,248.00	\$0.00	\$0.00	\$0.0
3274	1.3.1.1.5	Crystals and Gratings			0	82.7 wks	\$192,684.00	\$0.00	\$0.00	\$192,684.00	\$188,830.32	\$111,986.03	\$493,500.3
3275	1.3.1.1.5.1	Pulse Split and delay	LLNL		0	37.3 wks	\$89,236.00	\$0.00	\$0.00	\$89,236.00	\$87,451.28	\$49,613.65	\$226,300.9
3276	1.3.1.1.5.1	Vacuum engr	LLNL	ED&I	3	2 wks	\$5,040.00	\$0.00	\$0.00	\$5,040.00	\$4,939.20	\$3,492.72	\$13,471.9
		LLNL AD: Mech/Vacuum Engineer		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$5,040.00	\$0.00	\$0.00	\$0.0
3277	1.3.1.1.5.1	Engineering	LLNL	ED&I	2	24 wks	\$60,480.00	\$0.00	\$0.00	\$60,480.00	\$59,270.40	\$29,937.60	\$149,688.0
		LLNL Mechanical Engineer		ED&I	0	24 wks	\$0.00	\$0.00	\$0.00	\$60,480.00	\$0.00	\$0.00	\$0.0
3278	1.3.1.1.5.1	Design	LLNL	ED&I	3	10 wks	\$20,800.00	\$0.00	\$0.00	\$20,800.00	\$20,384.00	\$14,414.40	\$55,598.4
\dashv		LLNL Mech Drafting/Design		ED&I	0	10 wks	\$0.00	\$0.00	\$0.00	\$20,800.00	\$0.00	\$0.00	\$0.0
279	1.3.1.1.5.1	Inspection	LLNL	B&H	1	0.3 wks	\$636.00	\$0.00	\$0.00	\$636.00	\$623.28	\$188.89	\$1,448.
		LLNL Klystron: Technician		В&Н	0	0.3 wks	\$0.00	\$0.00	\$0.00	\$636.00	\$0.00	\$0.00	\$0.0
3280	1.3.1.1.5.1	Alignment	LLNL	B&H	3	1 wk	\$2,280.00	\$0.00	\$0.00	\$2,280.00	\$2,234.40	\$1,580.04	\$6,094.4
		LLNL Metrology:Eng.& Surveyors		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,280.00	\$0.00	\$0.00	\$0.0
3281	1.3.1.1.5.2	Crystal Monochromator	LLNL		0	45.4 wks	\$103,448.00	\$0.00	\$0.00	\$103,448.00	\$101,379.04	\$62,372.38	\$267,199.4
3282	1.3.1.1.5.2	Engineering	LLNL	ED&I	2	18 wks	\$45,360.00	\$0.00	\$0.00	\$45,360.00	\$44,452.80	\$22,453.20	\$112,266.0
		LLNL Mechanical Engineer		ED&I	0	18 wks	\$0.00	\$0.00	\$0.00	\$45,360.00	\$0.00	\$0.00	\$0.0
3283	1.3.1.1.5.2	Design	LLNL	ED&I	3	24 wks	\$49,920.00	\$0.00	\$0.00	\$49,920.00	\$48,921.60	\$34,594.56	\$133,436.1
		LLNL Mech Drafting/Design		ED&I	0	24 wks	\$0.00	\$0.00	\$0.00	\$49,920.00	\$0.00	\$0.00	\$0.0
3284	1.3.1.1.5.2	Inspection	LLNL	B&H	1	0.4 wks	\$848.00	\$0.00	\$0.00	\$848.00	\$831.04	\$251.86	\$1,930.9
		LLNL Klystron: Technician		B&H	0	0.4 wks	\$0.00	\$0.00	\$0.00	\$848.00	\$0.00	\$0.00	\$0.0
3285	1.3.1.1.5.2	Alignment planning	LLNL	B&H	3	1 wk	\$2,280.00	\$0.00	\$0.00	\$2,280.00	\$2,234.40	\$1,580.04	\$6,094.4
		LLNL Metrology:Eng.& Surveyors		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,280.00	\$0.00	\$0.00	\$0.0
3286	1.3.1.1.5.2	Vacuum engineering	LLNL	ED&I	3	2 wks	\$5,040.00	\$0.00	\$0.00	\$5,040.00	\$4,939.20	\$3,492.72	\$13,471.9
		LLNL AD: Mech/Vacuum Engineer		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$5,040.00	\$0.00	\$0.00	\$0.0
3287	1.3.1.1.6	Diagnostics			0	633.2 wks		\$0.00	\$0.00	\$1,549,992.00	\$1,518,992.16	\$651,986.28	\$3,720,970.4
3288	1.3.1.1.6.1	Modeling and Simulation	LLNL		0	207.9 wks	\$582,120.00	\$0.00	\$0.00	\$582,120.00	\$570,477.60	\$172,889.64	\$1,325,487.2
3289	1.3.1.1.6.1	Ginger Interface Wave Model	LLNL	ED&I	1	4.95 wks	\$13,860.00	\$0.00	\$0.00	\$13,860.00	\$13,582.80	\$4,116.42	\$31,559.2
		LLNL Physicist - Senior Scientist		ED&I	0	4.95 wks	\$0.00	\$0.00	\$0.00	\$13,860.00	\$0.00	\$0.00	\$0.0

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ID		Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
290	1.3.1.1.6.1	FEL Wave Model	LLNL	ED&I	1	4.95 wks	\$13,860.00	\$0.00	\$0.00	\$13,860.00	\$13,582.80	\$4,116.42	\$31,559.
		LLNL Physicist - Senior Scientist		ED&I	0	4.95 wks	\$0.00	\$0.00	\$0.00	\$13,860.00	\$0.00	\$0.00	\$0.
291	1.3.1.1.6.1	Harmonics Wave Model	LLNL	ED&I	1	4.95 wks	\$13,860.00	\$0.00	\$0.00	\$13,860.00	\$13,582.80	\$4,116.42	\$31,559
		LLNL Physicist - Senior Scientist		ED&I	0	4.95 wks	\$0.00	\$0.00	\$0.00	\$13,860.00	\$0.00	\$0.00	\$0.
292	1.3.1.1.6.1	Slit Wave Model	LLNL	ED&I	1	4.95 wks	\$13,860.00	\$0.00	\$0.00	\$13,860.00	\$13,582.80	\$4,116.42	\$31,559
\dashv		LLNL Physicist - Senior Scientist		ED&I	0	4.95 wks	\$0.00	\$0.00	\$0.00	\$13,860.00	\$0.00	\$0.00	\$0
93	1.3.1.1.6.1	Gas Attenuator Wave Model	LLNL	ED&I	1	4.95 wks	\$13,860.00	\$0.00	\$0.00	\$13,860.00	\$13,582.80	\$4,116.42	\$31,559
\dashv		LLNL Physicist - Senior Scientist		ED&I	0	4.95 wks	\$0.00	\$0.00	\$0.00	\$13,860.00	\$0.00	\$0.00	\$0
94	1.3.1.1.6.1	Wedge Attenuator Wave Model	LLNL	ED&I	1	4.95 wks	\$13,860.00	\$0.00	\$0.00	\$13,860.00	\$13,582.80	\$4,116.42	\$31,559
\dashv		LLNL Physicist - Senior Scientist		ED&I	0	4.95 wks	\$0.00	\$0.00	\$0.00	\$13,860.00	\$0.00	\$0.00	\$0
95	1.3.1.1.6.1	Mirror Wave Model	LLNL	ED&I	1	4.95 wks	\$13,860.00	\$0.00	\$0.00	\$13,860.00	\$13,582.80	\$4,116.42	\$31,559
\dashv		LLNL Physicist - Senior Scientist		ED&I	0	4.95 wks	\$0.00	\$0.00	\$0.00	\$13,860.00	\$0.00	\$0.00	\$0
96	1.3.1.1.6.1	Direct Scintillation Imager Wave Model	LLNL	ED&I	1	4.95 wks	\$13,860.00	\$0.00	\$0.00	\$13,860.00	\$13,582.80	\$4,116.42	\$31,559
\dashv		LLNL Physicist - Senior Scientist		ED&I	0	4.95 wks	\$0.00	\$0.00	\$0.00	\$13,860.00	\$0.00	\$0.00	\$0
97	1.3.1.1.6.1	Scattering Foil Imager Wave Model	LLNL	ED&I	1	4.95 wks	\$13,860.00	\$0.00	\$0.00	\$13,860.00	\$13,582.80	\$4,116.42	\$31,559
\dashv		LLNL Physicist - Senior Scientist		ED&I	0	4.95 wks	\$0.00	\$0.00	\$0.00	\$13,860.00	\$0.00	\$0.00	\$0
98	1.3.1.1.6.1	Micro Strip Ion Chamber Wave Model	LLNL	ED&I	1	4.95 wks	\$13,860.00	\$0.00	\$0.00	\$13,860.00	\$13,582.80	\$4,116.42	\$31,559
		LLNL Physicist - Senior Scientist		ED&I	0	4.95 wks	\$0.00	\$0.00	\$0.00	\$13,860.00	\$0.00	\$0.00	\$0
99	1.3.1.1.6.1	Diagnostics Tanks Wave Model	LLNL	ED&I	1	4.95 wks	\$13,860.00	\$0.00	\$0.00	\$13,860.00	\$13,582.80	\$4,116.42	\$31,559
\dashv		LLNL Physicist - Senior Scientist		ED&I	0	4.95 wks	\$0.00	\$0.00	\$0.00	\$13,860.00	\$0.00	\$0.00	\$0
00	1.3.1.1.6.1	Calorimeter Wave Model	LLNL	ED&I	1	4.95 wks	\$13,860.00	\$0.00	\$0.00	\$13,860.00	\$13,582.80	\$4,116.42	\$31,55
\dashv		LLNL Physicist - Senior Scientist		ED&I	0	4.95 wks	\$0.00	\$0.00	\$0.00	\$13,860.00	\$0.00	\$0.00	\$0
01	1.3.1.1.6.1	Pulse Length Wave Model	LLNL	ED&I	1	4.95 wks	\$13,860.00	\$0.00	\$0.00	\$13,860.00	\$13,582.80	\$4,116.42	\$31,559
\dashv		LLNL Physicist - Senior Scientist		ED&I	0	4.95 wks	\$0.00	\$0.00	\$0.00	\$13,860.00	\$0.00	\$0.00	\$0
02	1.3.1.1.6.1	Spectrometer Wave Model	LLNL	ED&I	1	4.95 wks	\$13,860.00	\$0.00	\$0.00	\$13,860.00	\$13,582.80	\$4,116.42	\$31,559
		LLNL Physicist - Senior Scientist		ED&I	0	4.95 wks	\$0.00	\$0.00	\$0.00	\$13,860.00	\$0.00	\$0.00	\$0
03	1.3.1.1.6.1	Transverse coherence Wave Model	LLNL	ED&I	1	4.95 wks	\$13,860.00	\$0.00	\$0.00	\$13,860.00	\$13,582.80	\$4,116.42	\$31,55
\dashv		LLNL Physicist - Senior Scientist		ED&I	0	4.95 wks	\$0.00	\$0.00	\$0.00	\$13,860.00	\$0.00	\$0.00	\$1
04	1.3.1.1.6.1	Spatial Shape and Centroid Wave Model	LLNL	ED&I	1	4.95 wks	\$13,860.00	\$0.00	\$0.00	\$13,860.00	\$13,582.80	\$4,116.42	\$31,55
\dashv		LLNL Physicist - Senior Scientist		ED&I	0	4.95 wks	\$0.00	\$0.00	\$0.00	\$13,860.00	\$0.00	\$0.00	\$
05	1.3.1.1.6.1	Zone Plates Wave Model	LLNL	ED&I	1	4.95 wks	\$13,860.00	\$0.00	\$0.00	\$13,860.00	\$13,582.80	\$4,116.42	\$31,55
4		LLNL Physicist - Senior Scientist		ED&I	0	4.95 wks	\$0.00	\$0.00	\$0.00	\$13,860.00	\$0.00	\$0.00	\$
06	1.3.1.1.6.1	Divergence Wave Model	LLNL	ED&I	1	4.95 wks	\$13,860.00	\$0.00	\$0.00	\$13,860.00	\$13,582.80	\$4,116.42	\$31,55
-		LLNL Physicist - Senior Scientist		ED&I	0	4.95 wks	\$0.00	\$0.00	\$0.00	\$13,860.00	\$0.00	\$0.00	\$31,00
307	1.3.1.1.6.1	KB Mirrors Wave Model	LLNL	ED&I		4.95 wks	\$13,860.00	\$0.00	\$0.00	\$13,860.00	\$13,582,80	\$4,116.42	\$31,55

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ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		LLNL Physicist - Senior Scientist		ED&I	0	4.95 wks	\$0.00	\$0.00	\$0.00	\$13,860.00	\$0.00	\$0.00	\$0.
308	1.3.1.1.6.1	Divergence Wave Model	LLNL	ED&I	1	4.95 wks	\$13,860.00	\$0.00	\$0.00	\$13,860.00	\$13,582.80	\$4,116.42	\$31,559
		LLNL Physicist - Senior Scientist		ED&I	0	4.95 wks	\$0.00	\$0.00	\$0.00	\$13,860.00	\$0.00	\$0.00	\$0
809	1.3.1.1.6.1	Monochrometer Wave Model	LLNL	ED&I	1	4.95 wks	\$13,860.00	\$0.00	\$0.00	\$13,860.00	\$13,582.80	\$4,116.42	\$31,559
		LLNL Physicist - Senior Scientist		ED&I	0	4.95 wks	\$0.00	\$0.00	\$0.00	\$13,860.00	\$0.00	\$0.00	\$0
310	1.3.1.1.6.1	Spontanious Monte Carlo	LLNL	ED&I	1	4.95 wks	\$13,860.00	\$0.00	\$0.00	\$13,860.00	\$13,582.80	\$4,116.42	\$31,559
		LLNL Physicist - Senior Scientist		ED&I	0	4.95 wks	\$0.00	\$0.00	\$0.00	\$13,860.00	\$0.00	\$0.00	\$0
311	1.3.1.1.6.1	FEL Monte Carlo	LLNL	ED&I	1	4.95 wks	\$13,860.00	\$0.00	\$0.00	\$13,860.00	\$13,582.80	\$4,116.42	\$31,559
		LLNL Physicist - Senior Scientist		ED&I	0	4.95 wks	\$0.00	\$0.00	\$0.00	\$13,860.00	\$0.00	\$0.00	\$0
12	1.3.1.1.6.1	Harmonics Monte Carlo	LLNL	ED&I	1	4.95 wks	\$13,860.00	\$0.00	\$0.00	\$13,860.00	\$13,582.80	\$4,116.42	\$31,559
		LLNL Physicist - Senior Scientist		ED&I	0	4.95 wks	\$0.00	\$0.00	\$0.00	\$13,860.00	\$0.00	\$0.00	\$0
13	1.3.1.1.6.1	Slit Monte Carlo	LLNL	ED&I	1	4.95 wks	\$13,860.00	\$0.00	\$0.00	\$13,860.00	\$13,582.80	\$4,116.42	\$31,55
		LLNL Physicist - Senior Scientist		ED&I	0	4.95 wks	\$0.00	\$0.00	\$0.00	\$13,860.00	\$0.00	\$0.00	\$0
14	1.3.1.1.6.1	Gas Attenuator Monte Carlo	LLNL	ED&I	1	4.95 wks	\$13,860.00	\$0.00	\$0.00	\$13,860.00	\$13,582.80	\$4,116.42	\$31,55
		LLNL Physicist - Senior Scientist		ED&I	0	4.95 wks	\$0.00	\$0.00	\$0.00	\$13,860.00	\$0.00	\$0.00	\$
15	1.3.1.1.6.1	Wedge Attenuator Monte Carlo	LLNL	ED&I	1	4.95 wks	\$13,860.00	\$0.00	\$0.00	\$13,860.00	\$13,582.80	\$4,116.42	\$31,55
		LLNL Physicist - Senior Scientist		ED&I	0	4.95 wks	\$0.00	\$0.00	\$0.00	\$13,860.00	\$0.00	\$0.00	\$
16	1.3.1.1.6.1	Mirror Monte Carlo	LLNL	ED&I	1	4.95 wks	\$13,860.00	\$0.00	\$0.00	\$13,860.00	\$13,582.80	\$4,116.42	\$31,55
		LLNL Physicist - Senior Scientist		ED&I	0	4.95 wks	\$0.00	\$0.00	\$0.00	\$13,860.00	\$0.00	\$0.00	\$(
317	1.3.1.1.6.1	Direct Scintillation Imager Monte Carlo	LLNL	ED&I		4.95 wks	\$13,860.00	\$0.00	\$0.00	\$13,860.00	\$13,582.80	\$4,116.42	\$31,55
17	1.3.1.1.0.1	LLNL Physicist - Senior Scientist	LLINE	ED&I	0	4.95 wks	\$0.00	\$0.00	\$0.00	\$13,860.00	\$0.00	\$0.00	\$31,33
318	1.3.1.1.6.1	Scattering Foil Imager Monte Carlo	LLNL	ED&I		4.95 WKS	\$13,860.00	\$0.00	\$0.00	\$13,860.00	\$13,582.80	\$4,116.42	\$31,55
010	1.3.1.1.6.1		LLINL	ED&I	0		\$13,860.00	\$0.00	\$0.00	\$13,860.00			
		LLNL Physicist - Senior Scientist			0	4.95 wks					\$0.00	\$0.00	\$0
319	1.3.1.1.6.1	Micro Strip Ion Chamber Monte Carlo	LLNL	ED&I	1	4.95 wks	\$13,860.00	\$0.00	\$0.00	\$13,860.00	\$13,582.80	\$4,116.42	\$31,55
		LLNL Physicist - Senior Scientist		ED&I	0	4.95 wks	\$0.00	\$0.00	\$0.00	\$13,860.00	\$0.00	\$0.00	\$
20	1.3.1.1.6.1	Diagnostics Tanks Monte Carlo	LLNL	ED&I	1	4.95 wks	\$13,860.00	\$0.00	\$0.00	\$13,860.00	\$13,582.80	\$4,116.42	\$31,55
		LLNL Physicist - Senior Scientist		ED&I	0	4.95 wks	\$0.00	\$0.00	\$0.00	\$13,860.00	\$0.00	\$0.00	\$
21	1.3.1.1.6.1	Calorimeter Monte Carlo	LLNL	ED&I	1	4.95 wks	\$13,860.00	\$0.00	\$0.00	\$13,860.00	\$13,582.80	\$4,116.42	\$31,55
		LLNL Physicist - Senior Scientist		ED&I	0	4.95 wks	\$0.00	\$0.00	\$0.00	\$13,860.00	\$0.00	\$0.00	\$
22	1.3.1.1.6.1	Pulse Length Monte Carlo	LLNL	ED&I	1	4.95 wks	\$13,860.00	\$0.00	\$0.00	\$13,860.00	\$13,582.80	\$4,116.42	\$31,55
		LLNL Physicist - Senior Scientist		ED&I	0	4.95 wks	\$0.00	\$0.00	\$0.00	\$13,860.00	\$0.00	\$0.00	\$
23	1.3.1.1.6.1	Spectrometer Monte Carlo	LLNL	ED&I	1	4.95 wks	\$13,860.00	\$0.00	\$0.00	\$13,860.00	\$13,582.80	\$4,116.42	\$31,55
		LLNL Physicist - Senior Scientist		ED&I	0	4.95 wks	\$0.00	\$0.00	\$0.00	\$13,860.00	\$0.00	\$0.00	\$
324	1.3.1.1.6.1	Transverse coherence Monte Carlo	LLNL	ED&I	1	4.95 wks	\$13,860.00	\$0.00	\$0.00	\$13,860.00	\$13,582.80	\$4,116.42	\$31,55
		LLNL Physicist - Senior Scientist		ED&I	0	4.95 wks	\$0.00	\$0.00	\$0.00	\$13,860.00	\$0.00	\$0.00	\$0

ID 3325	CWBS 1.3.1.1.6.1	Task Name Spatial Shape and Centroid Monte Carlo	OBS LLNL	PHASE ED&I	Risk	Units 4.95 wks	PED (Direct) \$13,860.00	M&S (Direct) \$0.00	Labor (Direct)	Direct Cost \$13,860.00	Overhead Cost \$13,582.80	Contingency Cost \$4,116.42	Total Cost \$31,559.2
		LLNL Physicist - Senior Scientist		ED&I	0	4.95 wks	\$0.00	\$0.00	\$0.00	\$13,860.00	\$0.00	\$0.00	\$0.00
2000	404404	•	LLNL										
3326	1.3.1.1.6.1	Zone Plates Monte Carlo	LLNL	ED&I	1	4.95 wks	\$13,860.00	\$0.00	\$0.00	\$13,860.00	\$13,582.80	\$4,116.42	\$31,559.2
		LLNL Physicist - Senior Scientist		ED&I	0	4.95 wks	\$0.00	\$0.00	\$0.00	\$13,860.00	\$0.00	\$0.00	\$0.00
3327	1.3.1.1.6.1	Divergence Monte Carlo	LLNL	ED&I	1	4.95 wks	\$13,860.00	\$0.00	\$0.00	\$13,860.00	\$13,582.80	\$4,116.42	\$31,559.2
		LLNL Physicist - Senior Scientist		ED&I	0	4.95 wks	\$0.00	\$0.00	\$0.00	\$13,860.00	\$0.00	\$0.00	\$0.00
3328	1.3.1.1.6.1	KB Mirrors Monte Carlo	LLNL	ED&I	1	4.95 wks	\$13,860.00	\$0.00	\$0.00	\$13,860.00	\$13,582.80	\$4,116.42	\$31,559.2
		LLNL Physicist - Senior Scientist		ED&I	0	4.95 wks	\$0.00	\$0.00	\$0.00	\$13,860.00	\$0.00	\$0.00	\$0.00
3329	1.3.1.1.6.1	Divergence Monte Carlo	LLNL	ED&I	1	4.95 wks	\$13,860.00	\$0.00	\$0.00	\$13,860.00	\$13,582.80	\$4,116.42	\$31,559.2
		LLNL Physicist - Senior Scientist		ED&I	0	4.95 wks	\$0.00	\$0.00	\$0.00	\$13,860.00	\$0.00	\$0.00	\$0.00
3330	1.3.1.1.6.1	Monochrometer Monte Carlo	LLNL	ED&I	1	4.95 wks	\$13,860.00	\$0.00	\$0.00	\$13,860.00	\$13,582.80	\$4,116.42	\$31,559.2
		LLNL Physicist - Senior Scientist		ED&I	0	4.95 wks	\$0.00	\$0.00	\$0.00	\$13,860.00	\$0.00	\$0.00	\$0.00
3331	1.3.1.1.6.2	•	LLNL	LDai			\$115,072.00	\$0.00	\$0.00	\$115,072.00	\$112,770.56	\$56,960.64	\$284,803.20
		Direct Scintillator Imager			0	49 wks				. ,	. ,		
3332	1.3.1.1.6.2	PDR Scintillator and light levels	LLNL	ED&I	2	1 wk	\$2,800.00	\$0.00	\$0.00	\$2,800.00	\$2,744.00	\$1,386.00	\$6,930.0
		LLNL Physicist - Senior Scientist		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,800.00	\$0.00	\$0.00	\$0.00
3333	1.3.1.1.6.2	PDR Optical Design	LLNL	ED&I	2	0.6 wks	\$1,680.00	\$0.00	\$0.00	\$1,680.00	\$1,646.40	\$831.60	\$4,158.0
		LLNL Physicist - Senior Scientist		ED&I	0	0.6 wks	\$0.00	\$0.00	\$0.00	\$1,680.00	\$0.00	\$0.00	\$0.00
3334	1.3.1.1.6.2	PDR Motion requirements	LLNL	ED&I	2	0.4 wks	\$1,120.00	\$0.00	\$0.00	\$1,120.00	\$1,097.60	\$554.40	\$2,772.0
		LLNL Physicist - Senior Scientist		ED&I	0	0.4 wks	\$0.00	\$0.00	\$0.00	\$1,120.00	\$0.00	\$0.00	\$0.00
3335	1.3.1.1.6.2	PDR CCD system EE	LLNL	ED&I	2	1 wk	\$2,480.00	\$0.00	\$0.00	\$2,480.00	\$2,430.40	\$1,227.60	\$6,138.0
		LLNL Electrical Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,480.00	\$0.00	\$0.00	\$0.0
3336	1.3.1.1.6.2	-	LLNL	ED&I	2	1 wk	\$2,480.00	\$0.00	\$0.00	\$2,480.00	\$2,430.40	\$1,227.60	\$6,138.0
		LLNL Electrical Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,480.00	\$0.00	\$0.00	\$0.00
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3337	1.3.1.1.6.2	·	LLNL	ED&I	2	1 wk	\$2,480.00	\$0.00	\$0.00	\$2,480.00	\$2,430.40	\$1,227.60	\$6,138.0
		LLNL Electrical Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,480.00	\$0.00	\$0.00	\$0.00
3338	1.3.1.1.6.2	PDR Readout / Data Acquisition EE	LLNL	ED&I	2	1 wk	\$2,480.00	\$0.00	\$0.00	\$2,480.00	\$2,430.40	\$1,227.60	\$6,138.0
		LLNL Electrical Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,480.00	\$0.00	\$0.00	\$0.00
3339	1.3.1.1.6.2	PDR Motors EE	LLNL	ED&I	2	1 wk	\$2,480.00	\$0.00	\$0.00	\$2,480.00	\$2,430.40	\$1,227.60	\$6,138.0
		LLNL Electrical Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,480.00	\$0.00	\$0.00	\$0.00
3340	1.3.1.1.6.2	PDR Drafting EE	LLNL	ED&I	2	2 wks	\$4,160.00	\$0.00	\$0.00	\$4,160.00	\$4,076.80	\$2,059.20	\$10,296.0
		LLNL Mech Drafting/Design		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,160.00	\$0.00	\$0.00	\$0.00
341	1.3.1.1.6.2		LLNL	ED&I	2	1 wk	\$2,520.00	\$0.00	\$0.00	\$2,520.00	\$2,469.60	\$1,247.40	\$6,237.0
		LLNL Mechanical Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,520.00	\$0.00	\$0.00	\$0.00
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342	1.3.1.1.6.2	PDR Objective/CCD ME	LLNL	ED&I	2	1 wk	\$2,520.00	\$0.00	\$0.00	\$2,520.00	\$2,469.60	\$1,247.40	\$6,237.0
		LLNL Mechanical Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,520.00	\$0.00	\$0.00	\$0.00

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ID		Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
343	1.3.1.1.6.2	PDR Scintillator Objective ME	LLNL	ED&I	2	1 wk	\$2,520.00	\$0.00	\$0.00	\$2,520.00	\$2,469.60	\$1,247.40	\$6,237.
		LLNL Mechanical Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,520.00	\$0.00	\$0.00	\$0.
344	1.3.1.1.6.2	PDR Base Plate ME	LLNL	ED&I	2	1 wk	\$2,520.00	\$0.00	\$0.00	\$2,520.00	\$2,469.60	\$1,247.40	\$6,237
		LLNL Mechanical Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,520.00	\$0.00	\$0.00	\$0.
345	1.3.1.1.6.2	PDR ME Drafing	LLNL	ED&I	2	2 wks	\$4,160.00	\$0.00	\$0.00	\$4,160.00	\$4,076.80	\$2,059.20	\$10,296
		LLNL Mech Drafting/Design		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,160.00	\$0.00	\$0.00	\$0
346	1.3.1.1.6.2	FDR Design and Theory	LLNL	ED&I	2	1 wk	\$2,160.00	\$0.00	\$0.00	\$2,160.00	\$2,116.80	\$1,069.20	\$5,346
		LLNL Physicist -Scientist		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,160.00	\$0.00	\$0.00	\$0
347	1.3.1.1.6.2	FDR Scintillating Crystal EE	LLNL	ED&I	2	2 wks	\$4,960.00	\$0.00	\$0.00	\$4,960.00	\$4,860.80	\$2,455.20	\$12,276
		LLNL Electrical Engineer		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,960.00	\$0.00	\$0.00	\$0
348	1.3.1.1.6.2	FDR Prism EE	LLNL	ED&I	2	1 wk	\$2,480.00	\$0.00	\$0.00	\$2,480.00	\$2,430.40	\$1,227.60	\$6,138
		LLNL Electrical Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,480.00	\$0.00	\$0.00	\$0
49	1.3.1.1.6.2		LLNL	ED&I	2	1 wk	\$2,480.00	\$0.00	\$0.00	\$2,480.00	\$2,430.40	\$1,227.60	\$6,138
		LLNL Electrical Engineer	22.12	ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,480.00	\$0.00	\$0.00	\$0,100
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50	1.3.1.1.6.2	·	LLNL	ED&I	2	1 wk	\$2,480.00	\$0.00	\$0.00	\$2,480.00	\$2,430.40	\$1,227.60	\$6,13
		LLNL Electrical Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,480.00	\$0.00	\$0.00	\$
51	1.3.1.1.6.2	FDR 120 Hz CCD EE	LLNL	ED&I	2	3 wks	\$7,440.00	\$0.00	\$0.00	\$7,440.00	\$7,291.20	\$3,682.80	\$18,41
		LLNL Electrical Engineer		ED&I	0	3 wks	\$0.00	\$0.00	\$0.00	\$7,440.00	\$0.00	\$0.00	\$0
52	1.3.1.1.6.2	FDR TE Cooler EE	LLNL	ED&I	2	1 wk	\$2,480.00	\$0.00	\$0.00	\$2,480.00	\$2,430.40	\$1,227.60	\$6,13
		LLNL Electrical Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,480.00	\$0.00	\$0.00	\$6
53	1.3.1.1.6.2	FDR CCD Analog board EE	LLNL	ED&I	2	1 wk	\$2,480.00	\$0.00	\$0.00	\$2,480.00	\$2,430.40	\$1,227.60	\$6,13
		LLNL Electrical Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,480.00	\$0.00	\$0.00	\$0
54	1.3.1.1.6.2	FDR Camera Digital board EE	LLNL	ED&I	2	1 wk	\$2,480.00	\$0.00	\$0.00	\$2,480.00	\$2,430.40	\$1,227.60	\$6,13
		LLNL Electrical Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,480.00	\$0.00	\$0.00	\$0
55	1.3.1.1.6.2	FDR Microchannel plate HV board EE	LLNL	ED&I	2	1 wk	\$2,480.00	\$0.00	\$0.00	\$2,480.00	\$2,430.40	\$1,227.60	\$6,138
		LLNL Electrical Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,480.00	\$0.00	\$0.00	\$6
56	1.3.1.1.6.2		LLNL	ED&I	2	1 wk	\$2,480.00	\$0.00	\$0.00	\$2,480.00	\$2,430.40	\$1,227.60	\$6,13
		LLNL Electrical Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,480.00	\$0.00	\$0.00	\$(
57	1.3.1.1.6.2	-	LLNL	ED&I	2	1 wk	\$2,480.00	\$0.00	\$0.00	\$2,480.00	\$2,430.40	\$1,227.60	\$6,13
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		LLNL Electrical Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,480.00	\$0.00	\$0.00	\$
58	1.3.1.1.6.2		LLNL	ED&I	2	0.6 wks	\$1,248.00	\$0.00	\$0.00	\$1,248.00	\$1,223.04	\$617.76	\$3,08
		LLNL Mech Drafting/Design		ED&I	0	0.6 wks	\$0.00	\$0.00	\$0.00	\$1,248.00	\$0.00	\$0.00	\$
59	1.3.1.1.6.2	FDR CCD Analog board Drafting EE	LLNL	ED&I	2	0.6 wks	\$1,248.00	\$0.00	\$0.00	\$1,248.00	\$1,223.04	\$617.76	\$3,08
		LLNL Mech Drafting/Design		ED&I	0	0.6 wks	\$0.00	\$0.00	\$0.00	\$1,248.00	\$0.00	\$0.00	\$6
60	1.3.1.1.6.2	FDR Camera Digital board Drafting EE	LLNL	ED&I	2	0.6 wks	\$1,248.00	\$0.00	\$0.00	\$1,248.00	\$1,223.04	\$617.76	\$3,088

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ID	CWBS	Task Name LLNL Mech Drafting/Design	OBS	PHASE ED&I	Risk	Units 0.6 wks	PED (Direct) \$0.00	M&S (Direct) \$0.00	Labor (Direct) \$0.00	Direct Cost \$1,248.00	Overhead Cost \$0.00	Contingency Cost \$0.00	Total Cost \$0.00
3361	1.3.1.1.6.2		LLNL	ED&I	2	0.2 wks	\$504.00	\$0.00	\$0.00	\$504.00	\$493.92		\$1,247.40
		LLNL Mechanical Engineer		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$504.00	\$0.00	\$0.00	\$0.00
3362	1.3.1.1.6.2	FDR Prism to objective motorized stage ME	LLNL	ED&I	2	0.2 wks	\$504.00	\$0.00	\$0.00	\$504.00	\$493.92	\$249.48	\$1,247.40
		LLNL Mechanical Engineer		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$504.00	\$0.00	\$0.00	\$0.00
3363	1.3.1.1.6.2	FDR Microscope objective ME	LLNL	ED&I	2	0.2 wks	\$504.00	\$0.00	\$0.00	\$504.00	\$493.92	\$249.48	\$1,247.40
		LLNL Mechanical Engineer		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$504.00	\$0.00	\$0.00	\$0.00
3364	1.3.1.1.6.2	FDR Objective to CCD manual stage ME	LLNL	ED&I	2	0.2 wks	\$504.00	\$0.00	\$0.00	\$504.00	\$493.92	\$249.48	\$1,247.40
		LLNL Mechanical Engineer		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$504.00	\$0.00	\$0.00	\$0.00
3365	1.3.1.1.6.2	FDR Microchannel plate I/F ME	LLNL	ED&I	2	0.2 wks	\$504.00	\$0.00	\$0.00	\$504.00	\$493.92	\$249.48	\$1,247.40
		LLNL Mechanical Engineer		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$504.00	\$0.00	\$0.00	\$0.00
3366	1.3.1.1.6.2	-	LLNL	ED&I	2	0.2 wks	\$504.00	\$0.00	\$0.00	\$504.00	\$493.92		\$1,247.40
	1.0.1.1.0.2	LLNL Mechanical Engineer	LLINE	ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$504.00	\$0.00	\$0.00	\$0.00
0007	10110		LLNL			0.2 wks	\$504.00			\$504.00	\$493.92		
3367	1.3.1.1.6.2	-	LLNL	ED&I	2			\$0.00	\$0.00				\$1,247.40
		LLNL Mechanical Engineer		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$504.00	\$0.00	\$0.00	\$0.00
3368	1.3.1.1.6.2	FDR Camera Digital board ME	LLNL	ED&I	2	0.2 wks	\$504.00	\$0.00	\$0.00	\$504.00	\$493.92	\$249.48	\$1,247.40
		LLNL Mechanical Engineer		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$504.00	\$0.00	\$0.00	\$0.00
3369	1.3.1.1.6.2	FDR Microchannel plate HV board ME	LLNL	ED&I	2	0.2 wks	\$504.00	\$0.00	\$0.00	\$504.00	\$493.92	\$249.48	\$1,247.40
		LLNL Mechanical Engineer		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$504.00	\$0.00	\$0.00	\$0.00
3370	1.3.1.1.6.2	FDR Camera Interface board ME	LLNL	ED&I	2	0.2 wks	\$504.00	\$0.00	\$0.00	\$504.00	\$493.92	\$249.48	\$1,247.40
		LLNL Mechanical Engineer		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$504.00	\$0.00	\$0.00	\$0.00
3371	1.3.1.1.6.2	FDR Computer Interface board ME	LLNL	ED&I	2	0.2 wks	\$504.00	\$0.00	\$0.00	\$504.00	\$493.92	\$249.48	\$1,247.40
		LLNL Mechanical Engineer		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$504.00	\$0.00	\$0.00	\$0.00
3372	1.3.1.1.6.2	FDR Camera vaccum housing ME	LLNL	ED&I	2	0.2 wks	\$504.00	\$0.00	\$0.00	\$504.00	\$493.92	\$249.48	\$1,247.40
		LLNL Mechanical Engineer		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$504.00	\$0.00	\$0.00	\$0.00
3373	1.3.1.1.6.2	-	LLNL	ED&I	2	0.2 wks	\$504.00	\$0.00	\$0.00	\$504.00	\$493.92		\$1,247.40
	1.0.1.1.0.2	-	LLINE	ED&I		0.2 wks	\$0.00	\$0.00	\$0.00	\$504.00	\$0.00	\$0.00	\$0.00
		LLNL Mechanical Engineer			0								
3374	1.3.1.1.6.2		LLNL	ED&I	2	0.2 wks	\$504.00	\$0.00	\$0.00	\$504.00	\$493.92		\$1,247.40
		LLNL Mechanical Engineer		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$504.00	\$0.00	\$0.00	\$0.00
3375	1.3.1.1.6.2	FDR System ME Drafing	LLNL	ED&I	2	0.6 wks	\$1,248.00	\$0.00	\$0.00	\$1,248.00	\$1,223.04	\$617.76	\$3,088.80
		LLNL Mech Drafting/Design		ED&I	0	0.6 wks	\$0.00	\$0.00	\$0.00	\$1,248.00	\$0.00	\$0.00	\$0.00
3376	1.3.1.1.6.2	FDR Prism to objective motorized stage ME Drafing	LLNL	ED&I	2	0.2 wks	\$416.00	\$0.00	\$0.00	\$416.00	\$407.68	\$205.92	\$1,029.60
		LLNL Mech Drafting/Design		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$416.00	\$0.00	\$0.00	\$0.00
3377	1.3.1.1.6.2	FDR Objective to CCD manual stage ME Drafing	LLNL	ED&I	2	0.2 wks	\$416.00	\$0.00	\$0.00	\$416.00	\$407.68	\$205.92	\$1,029.60
		LLNL Mech Drafting/Design		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$416.00	\$0.00	\$0.00	\$0.00
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ID		Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
378	1.3.1.1.6.2	FDR Camera vaccum housing ME Drafing	LLNL	ED&I	2	0.2 wks	\$416.00	\$0.00	\$0.00	\$416.00	\$407.68	\$205.92	\$1,029.6
		LLNL Mech Drafting/Design		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$416.00	\$0.00	\$0.00	\$0.0
379	1.3.1.1.6.2	FDR Cold finger ME Drafing	LLNL	ED&I	2	0.2 wks	\$416.00	\$0.00	\$0.00	\$416.00	\$407.68	\$205.92	\$1,029.
		LLNL Mech Drafting/Design		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$416.00	\$0.00	\$0.00	\$0.
380	1.3.1.1.6.2	Computer Documentation & drafting	LLNL	ED&I	2	1 wk	\$2,160.00	\$0.00	\$0.00	\$2,160.00	\$2,116.80	\$1,069.20	\$5,346.
-		LLNL Physicist -Scientist		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,160.00	\$0.00	\$0.00	\$0.
381	1.3.1.1.6.2	Computer Interface Programming	LLNL	ED&I	2	6 wks	\$12,960.00	\$0.00	\$0.00	\$12,960.00	\$12,700.80	\$6,415.20	\$32,076
-		LLNL Physicist -Scientist		ED&I	0	6 wks	\$0.00	\$0.00	\$0.00	\$12,960.00	\$0.00	\$0.00	\$0.
382	1.3.1.1.6.2	Image Analysis	LLNL	ED&I	2	6 wks	\$12,960.00	\$0.00	\$0.00	\$12,960.00	\$12,700.80	\$6,415.20	\$32,076.
-		LLNL Physicist -Scientist		ED&I	0	6 wks	\$0.00	\$0.00	\$0.00	\$12,960.00	\$0.00	\$0.00	\$0.
383	1.3.1.1.6.3	Scattering Foil Imager	LLNL		0	23.4 wks	\$39,200.00	\$0.00	\$0.00	\$39,200.00	\$38,416.00	\$19,404.00	\$97,020.
384	1.3.1.1.6.3	PDR Reflectivity and Thickness Design and Theory	LLNL	ED&I	2	1 wk	\$2,160.00	\$0.00	\$0.00	\$2,160.00	\$2,116.80	\$1,069.20	\$5,346.
		LLNL Physicist -Scientist		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,160.00	\$0.00	\$0.00	\$0.
385	1.3.1.1.6.3	PDR Motion requirements Design and Theory	LLNL	ED&I	2	0.4 wks	\$864.00	\$0.00	\$0.00	\$864.00	\$846.72	\$427.68	\$2,138
		LLNL Physicist -Scientist		ED&I	0	0.4 wks	\$0.00	\$0.00	\$0.00	\$864.00	\$0.00	\$0.00	\$0.
386	1.3.1.1.6.3	•	LLNL	ED&I	2	0.2 wks	\$496.00	\$0.00	\$0.00	\$496.00	\$486.08	\$245.52	\$1,227
		LLNL Electrical Engineer		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$496.00	\$0.00	\$0.00	\$0.
387	1.3.1.1.6.3	-	LLNL	ED&I	2	0.2 wks	\$496.00	\$0.00	\$0.00	\$496.00	\$486.08	\$245.52	\$1,227
		LLNL Electrical Engineer		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$496.00	\$0.00	\$0.00	\$0.
3388	1.3.1.1.6.3		LLNL	ED&I	2	0.2 wks	\$496.00	\$0.00	\$0.00	\$496.00	\$486.08	\$245.52	\$1,227
300	1.3.1.1.0.3	·	LLINL	ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$496.00	\$0.00	\$0.00	
2000	101100	LLNL Electrical Engineer	LLNL	ED&I				·			\$486.08	\$245.52	\$0.
389	1.3.1.1.6.3		LLNL		2	0.2 wks	\$496.00	\$0.00	\$0.00	\$496.00			\$1,227.
		LLNL Electrical Engineer		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$496.00	\$0.00	\$0.00	\$0.
390	1.3.1.1.6.3	-	LLNL	ED&I	2	0.2 wks	\$416.00	\$0.00	\$0.00	\$416.00	\$407.68	\$205.92	\$1,029.
		LLNL Mech Drafting/Design		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$416.00	\$0.00	\$0.00	\$0.
391	1.3.1.1.6.3		LLNL	ED&I	2	0.2 wks	\$504.00	\$0.00	\$0.00	\$504.00	\$493.92	\$249.48	\$1,247.
		LLNL Mechanical Engineer		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$504.00	\$0.00	\$0.00	\$0.
392	1.3.1.1.6.3	PDR Be foil mount ME	LLNL	ED&I	2	0.2 wks	\$504.00	\$0.00	\$0.00	\$504.00	\$493.92	\$249.48	\$1,247
		LLNL Mechanical Engineer		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$504.00	\$0.00	\$0.00	\$0.
393	1.3.1.1.6.3	PDR Mirror mount ME	LLNL	ED&I	2	0.2 wks	\$504.00	\$0.00	\$0.00	\$504.00	\$493.92	\$249.48	\$1,247
		LLNL Mechanical Engineer		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$504.00	\$0.00	\$0.00	\$0.
394	1.3.1.1.6.3	PDR Mirror motorized rotation stage ME	LLNL	ED&I	2	0.2 wks	\$504.00	\$0.00	\$0.00	\$504.00	\$493.92	\$249.48	\$1,247.
\dashv		LLNL Mechanical Engineer		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$504.00	\$0.00	\$0.00	\$0.
395	1.3.1.1.6.3	PDR Base plate ME	LLNL	ED&I	2	0.2 wks	\$504.00	\$0.00	\$0.00	\$504.00	\$493.92	\$249.48	\$1,247.
		LLNL Mechanical Engineer	-	ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$504.00	\$0.00	\$0.00	\$0.

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10	OWDO	Test News	000	DUAGE	Dist	11-5-	DED (D:1)	Mag (Dissel)	Labar (Discar)	Discort Court	0	0	T-1-101
ID 3396	CWBS 1.3.1.1.6.3	Task Name PDR Camera Base Plate ME	OBS LLNL	PHASE ED&I	Risk 2	Units 0.2 wks	PED (Direct) \$504.00	M&S (Direct) \$0.00	Labor (Direct) \$0.00	Direct Cost \$504.00	Overhead Cost \$493.92	Contingency Cost \$249.48	Total Cost \$1,247.4
		LLNL Mechanical Engineer		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$504.00	\$0.00	\$0.00	\$0.00
3397	1.3.1.1.6.3	PDR Camera motorized horizontal stage ME	LLNL	ED&I	2	0.2 wks	\$504.00	\$0.00	\$0.00	\$504.00	\$493.92	\$249.48	\$1,247.4
		LLNL Mechanical Engineer		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$504.00	\$0.00	\$0.00	\$0.00
398	1.3.1.1.6.3	PDR Camera motorized verticle stage ME	LLNL	ED&I	2	0.2 wks	\$504.00	\$0.00	\$0.00	\$504.00	\$493.92	\$249.48	\$1,247.4
		LLNL Mechanical Engineer		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$504.00	\$0.00	\$0.00	\$0.0
399	1.3.1.1.6.3	PDR Mechanical Hardware ME	LLNL	ED&I	2	0.2 wks	\$504.00	\$0.00	\$0.00	\$504.00	\$493.92	\$249.48	\$1,247.4
		LLNL Mechanical Engineer		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$504.00	\$0.00	\$0.00	\$0.0
400	1.3.1.1.6.3	PDR ME Drafing	LLNL	ED&I	2	1 wk	\$2,080.00	\$0.00	\$0.00	\$2,080.00	\$2,038.40	\$1,029.60	\$5,148.0
		LLNL Mech Drafting/Design		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,080.00	\$0.00	\$0.00	\$0.0
401	1.3.1.1.6.3	FDR Reflectivity and Thickness Design and Theory	LLNL	ED&I	2	1 wk	\$2,160.00	\$0.00	\$0.00	\$2,160.00	\$2,116.80	\$1,069.20	\$5,346.0
		LLNL Physicist -Scientist		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,160.00	\$0.00	\$0.00	\$0.0
402	1.3.1.1.6.3	FDR Motion requirements Design and Theory	LLNL	ED&I	2	0.4 wks	\$864.00	\$0.00	\$0.00	\$864.00	\$846.72	\$427.68	\$2,138.4
	1.0.1.1.0.0	LLNL Physicist -Scientist	LEINE	ED&I	0	0.4 wks	\$0.00	\$0.00	\$0.00	\$864.00	\$0.00	\$0.00	\$0.0
400	101100	·											
103	1.3.1.1.6.3		LLNL	ED&I	2	0.2 wks	\$496.00	\$0.00	\$0.00	\$496.00	\$486.08	\$245.52	\$1,227.6
		LLNL Electrical Engineer		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$496.00	\$0.00	\$0.00	\$0.0
404	1.3.1.1.6.3	FDR Motor Controller EE	LLNL	ED&I	2	0.2 wks	\$496.00	\$0.00	\$0.00	\$496.00	\$486.08	\$245.52	\$1,227.6
		LLNL Electrical Engineer		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$496.00	\$0.00	\$0.00	\$0.0
405	1.3.1.1.6.3	FDR Motor Computer I/F EE	LLNL	ED&I	2	0.2 wks	\$496.00	\$0.00	\$0.00	\$496.00	\$486.08	\$245.52	\$1,227.6
		LLNL Electrical Engineer		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$496.00	\$0.00	\$0.00	\$0.0
106	1.3.1.1.6.3	FDR Electrical Hardware EE	LLNL	ED&I	2	0.2 wks	\$496.00	\$0.00	\$0.00	\$496.00	\$486.08	\$245.52	\$1,227.
		LLNL Electrical Engineer		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$496.00	\$0.00	\$0.00	\$0.0
407	1.3.1.1.6.3	FDR Drafting EE	LLNL	ED&I	2	0.2 wks	\$416.00	\$0.00	\$0.00	\$416.00	\$407.68	\$205.92	\$1,029.
		LLNL Mech Drafting/Design		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$416.00	\$0.00	\$0.00	\$0.0
408	1.3.1.1.6.3	FDR Be foil ME	LLNL	ED&I	2	0.2 wks	\$504.00	\$0.00	\$0.00	\$504.00	\$493.92	\$249.48	\$1,247.4
		LLNL Mechanical Engineer		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$504.00	\$0.00	\$0.00	\$0.0
409	1.3.1.1.6.3	FDR Be foil mount ME	LLNL	ED&I	2	0.2 wks	\$504.00	\$0.00	\$0.00	\$504.00	\$493.92	\$249.48	\$1,247.
		LLNL Mechanical Engineer		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$504.00	\$0.00	\$0.00	\$0.0
410	1.3.1.1.6.3	FDR Mirror mount ME	LLNL	ED&I	2	0.2 wks	\$504.00	\$0.00	\$0.00	\$504.00	\$493.92	\$249.48	\$1,247.4
		LLNL Mechanical Engineer		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$504.00	\$0.00	\$0.00	\$0.0
111	1.3.1.1.6.3	FDR Mirror motorized rotation stage ME	LLNL	ED&I	2	0.2 wks	\$504.00	\$0.00	\$0.00	\$504.00	\$493.92	\$249.48	\$1,247.
		LLNL Mechanical Engineer		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$504.00	\$0.00	\$0.00	\$0.0
412	1.3.1.1.6.3		LLNL	ED&I	2	0.2 wks	\$504.00	\$0.00	\$0.00	\$504.00	\$493.92	\$249.48	\$1,247.
		LLNL Mechanical Engineer	1	ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$504.00	\$0.00	\$0.00	\$0.0
440	424400	FDR Camera Base Plate ME	LLNL				\$504.00	\$0.00	\$0.00		\$493.92	\$249.48	
413	1.3.1.1.6.3	FUR Camera Base Plate ME	LLNL	ED&I	2	0.2 wks	\$504.00	\$0.00	\$0.00	\$504.00	\$493.92	\$249.48	\$1,247.4

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ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		LLNL Mechanical Engineer		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$504.00	\$0.00	\$0.00	\$0.0
114	1.3.1.1.6.3	-	LLNL	ED&I	2	0.2 wks	\$504.00	\$0.00	\$0.00	\$504.00	\$493.92	\$249.48	\$1,247.
		LLNL Mechanical Engineer		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$504.00	\$0.00	\$0.00	\$0.
115	1.3.1.1.6.3	FDR Camera motorized verticle stage ME	LLNL	ED&I	2	0.2 wks	\$504.00	\$0.00	\$0.00	\$504.00	\$493.92	\$249.48	\$1,247.
		LLNL Mechanical Engineer		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$504.00	\$0.00	\$0.00	\$0.
116	1.3.1.1.6.3	FDR Mechanical Hardware ME	LLNL	ED&I	2	0.2 wks	\$504.00	\$0.00	\$0.00	\$504.00	\$493.92	\$249.48	\$1,247
		LLNL Mechanical Engineer		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$504.00	\$0.00	\$0.00	\$0.
117	1.3.1.1.6.3	FDR ME Drafing	LLNL	ED&I	2	1 wk	\$2,080.00	\$0.00	\$0.00	\$2,080.00	\$2,038.40	\$1,029.60	\$5,148
		LLNL Mech Drafting/Design		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,080.00	\$0.00	\$0.00	\$0
118	1.3.1.1.6.3	Computer Documentation & drafting	LLNL	ED&I	2	1 wk	\$2,160.00	\$0.00	\$0.00	\$2,160.00	\$2,116.80	\$1,069.20	\$5,346
		LLNL Physicist -Scientist		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,160.00	\$0.00	\$0.00	\$0
119	1.3.1.1.6.3	Computer Interface Programming	LLNL	ED&I	2	6 wks	\$12,960.00	\$0.00	\$0.00	\$12,960.00	\$12,700.80	\$6,415.20	\$32,076
		LLNL Physicist -Scientist		ED&I	0	6 wks	\$0.00	\$0.00	\$0.00	\$12,960.00	\$0.00	\$0.00	\$0
120	1.3.1.1.6.3	Image Analysis	LLNL		2	6 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
		Micro Strip Ion Chamber			0	6 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
21	1.3.1.1.6.4	Micro Strip Ion Chamber	LLNL		0	65.8 wks	\$152,520.00	\$0.00	\$0.00	\$152,520.00	\$149,469.60	\$75,497.40	\$377,487
22	1.3.1.1.6.4	·	LLNL	ED&I	2	0.4 wks	\$864.00	\$0.00	\$0.00	\$864.00	\$846.72		\$2,138
		LLNL Physicist -Scientist		ED&I	0	0.4 wks	\$0.00	\$0.00	\$0.00	\$864.00	\$0.00	\$0.00	\$0
123	1.3.1.1.6.4	PDR Microstrips Design and Theory	LLNL	ED&I	2	0.4 wks	\$864.00	\$0.00	\$0.00	\$864.00	\$846.72	\$427.68	\$2,138
120	1.0.1.1.0.4	LLNL Physicist -Scientist	LEIVE	ED&I	0	0.4 wks	\$0.00	\$0.00	\$0.00	\$864.00	\$0.00	\$0.00	\$2,100
10.4	101101	·											
124	1.3.1.1.6.4		LLNL	ED&I	2	0.4 wks	\$864.00	\$0.00	\$0.00	\$864.00	\$846.72	\$427.68	\$2,138
		LLNL Physicist -Scientist		ED&I	0	0.4 wks	\$0.00	\$0.00	\$0.00	\$864.00	\$0.00	\$0.00	\$0
125	1.3.1.1.6.4		LLNL	ED&I	2	0.4 wks	\$992.00	\$0.00	\$0.00	\$992.00	\$972.16	\$491.04	\$2,45
		LLNL Electrical Engineer		ED&I	0	0.4 wks	\$0.00	\$0.00	\$0.00	\$992.00	\$0.00	\$0.00	\$0
126	1.3.1.1.6.4	PDR Pulse processing electronics EE	LLNL	ED&I	2	0.2 wks	\$496.00	\$0.00	\$0.00	\$496.00	\$486.08	\$245.52	\$1,227
		LLNL Electrical Engineer		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$496.00	\$0.00	\$0.00	\$0
127	1.3.1.1.6.4	PDR Controls EE	LLNL	ED&I	2	0.4 wks	\$992.00	\$0.00	\$0.00	\$992.00	\$972.16	\$491.04	\$2,455
		LLNL Electrical Engineer		ED&I	0	0.4 wks	\$0.00	\$0.00	\$0.00	\$992.00	\$0.00	\$0.00	\$0
28	1.3.1.1.6.4	PDR Drafting EE	LLNL	ED&I	2	1 wk	\$2,080.00	\$0.00	\$0.00	\$2,080.00	\$2,038.40	\$1,029.60	\$5,14
		LLNL Mech Drafting/Design		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,080.00	\$0.00	\$0.00	\$0
29	1.3.1.1.6.4	PDR Chamber ME	LLNL	ED&I	2	0.4 wks	\$1,008.00	\$0.00	\$0.00	\$1,008.00	\$987.84	\$498.96	\$2,49
		LLNL Mechanical Engineer		ED&I	0	0.4 wks	\$0.00	\$0.00	\$0.00	\$1,008.00	\$0.00	\$0.00	\$0
130	1.3.1.1.6.4	PDR Differential pumping ME	LLNL	ED&I	2	0.4 wks	\$1,008.00	\$0.00	\$0.00	\$1,008.00	\$987.84	\$498.96	\$2,49
		LLNL Mechanical Engineer		ED&I	0	0.4 wks	\$0.00	\$0.00	\$0.00	\$1,008.00	\$0.00	\$0.00	\$0
131	1.3.1.1.6.4	PDR Stand and Mount ME	LLNL	ED&I	2	0.2 wks	\$504.00	\$0.00	\$0.00	\$504.00	\$493.92	\$249.48	\$1,247

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ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		LLNL Mechanical Engineer		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$504.00	\$0.00	\$0.00	\$0.
432	1.3.1.1.6.4	PDR ME Drafing	LLNL	ED&I	2	1 wk	\$2,080.00	\$0.00	\$0.00	\$2,080.00	\$2,038.40	\$1,029.60	\$5,148.
		LLNL Mech Drafting/Design		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,080.00	\$0.00	\$0.00	\$0.
133	1.3.1.1.6.4	FDR Design and Theory	LLNL	ED&I	2	3 wks	\$6,480.00	\$0.00	\$0.00	\$6,480.00	\$6,350.40	\$3,207.60	\$16,038
		LLNL Physicist -Scientist		ED&I	0	3 wks	\$0.00	\$0.00	\$0.00	\$6,480.00	\$0.00	\$0.00	\$0
134	1.3.1.1.6.4	FDR Pumping Controller EE	LLNL	ED&I	2	1 wk	\$2,480.00	\$0.00	\$0.00	\$2,480.00	\$2,430.40	\$1,227.60	\$6,138
		LLNL Electrical Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,480.00	\$0.00	\$0.00	\$0
435	1.3.1.1.6.4	FDR Anode EE	LLNL	ED&I	2	3 wks	\$7,440.00	\$0.00	\$0.00	\$7,440.00	\$7,291.20	\$3,682.80	\$18,414
		LLNL Electrical Engineer		ED&I	0	3 wks	\$0.00	\$0.00	\$0.00	\$7,440.00	\$0.00	\$0.00	\$0
136	1.3.1.1.6.4	FDR Cathode EE	LLNL	ED&I	2	2 wks	\$4,960.00	\$0.00	\$0.00	\$4,960.00	\$4,860.80	\$2,455.20	\$12,276
		LLNL Electrical Engineer		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,960.00	\$0.00	\$0.00	\$0
137	1.3.1.1.6.4	-	LLNL	ED&I	2	1 wk		\$0.00	\$0.00	\$2,480.00	\$2,430.40		\$6,138
101	1.0.1.1.0.4	LLNL Electrical Engineer	ELIVE	ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,480.00	\$0.00	\$0.00	\$0,100
100	101101	-			2								
138	1.3.1.1.6.4		LLNL	ED&I	-	2 wks	\$4,960.00	\$0.00	\$0.00	\$4,960.00	\$4,860.80	\$2,455.20	\$12,27
		LLNL Electrical Engineer		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,960.00	\$0.00	\$0.00	\$6
39	1.3.1.1.6.4	FDR Safety Note EE	LLNL	ED&I	2	1 wk	\$2,480.00	\$0.00	\$0.00	\$2,480.00	\$2,430.40	\$1,227.60	\$6,13
		LLNL Electrical Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,480.00	\$0.00	\$0.00	\$0
40	1.3.1.1.6.4	FDR Pumping Controller Drafting EE	LLNL	ED&I	2	0.6 wks	\$1,248.00	\$0.00	\$0.00	\$1,248.00	\$1,223.04	\$617.76	\$3,08
		LLNL Mech Drafting/Design		ED&I	0	0.6 wks	\$0.00	\$0.00	\$0.00	\$1,248.00	\$0.00	\$0.00	\$0
141	1.3.1.1.6.4	FDR Anode Drafting EE	LLNL	ED&I	2	0.6 wks	\$1,248.00	\$0.00	\$0.00	\$1,248.00	\$1,223.04	\$617.76	\$3,08
		LLNL Mech Drafting/Design		ED&I	0	0.6 wks	\$0.00	\$0.00	\$0.00	\$1,248.00	\$0.00	\$0.00	\$6
142	1.3.1.1.6.4	FDR Cathode Drafting EE	LLNL	ED&I	2	0.6 wks	\$1,248.00	\$0.00	\$0.00	\$1,248.00	\$1,223.04	\$617.76	\$3,08
		LLNL Mech Drafting/Design		ED&I	0	0.6 wks	\$0.00	\$0.00	\$0.00	\$1,248.00	\$0.00	\$0.00	\$0
143	1.3.1.1.6.4	FDR Data Processing Electronics Drafting EE	LLNL	ED&I	2	0.6 wks	\$1,248.00	\$0.00	\$0.00	\$1,248.00	\$1,223.04	\$617.76	\$3,088
		LLNL Mech Drafting/Design		ED&I	0	0.6 wks	\$0.00	\$0.00	\$0.00	\$1,248.00	\$0.00	\$0.00	\$0
144	1.3.1.1.6.4		LLNL	ED&I	2	3 wks	\$7,560.00	\$0.00	\$0.00	\$7,560.00	\$7,408.80	\$3,742.20	\$18,71
	1.0.1.1.0.4	LLNL Mechanical Engineer	ELIVE	ED&I	0	3 wks	\$0.00	\$0.00	\$0.00	\$7,560.00	\$0.00	\$0.00	\$10,71
45	1.3.1.1.6.4	-	LLNL	ED&I	2	1 wk		\$0.00	\$0.00	\$2,520.00	\$2,469.60	\$1,247.40	\$6,23
145	1.3.1.1.0.4		LLINL		-								
		LLNL Mechanical Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,520.00	\$0.00	\$0.00	\$
46	1.3.1.1.6.4	FDR Turbo Pumps Engineering ME	LLNL	ED&I	2	1 wk	\$2,520.00	\$0.00	\$0.00	\$2,520.00	\$2,469.60	\$1,247.40	\$6,23
		LLNL Mechanical Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,520.00	\$0.00	\$0.00	\$
147	1.3.1.1.6.4	FDR Dry Pumps ME	LLNL	ED&I	2	1 wk	\$2,520.00	\$0.00	\$0.00	\$2,520.00	\$2,469.60	\$1,247.40	\$6,23
		LLNL Mechanical Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,520.00	\$0.00	\$0.00	\$0
148	1.3.1.1.6.4	FDR Chamber ME	LLNL	ED&I	2	2 wks	\$5,040.00	\$0.00	\$0.00	\$5,040.00	\$4,939.20	\$2,494.80	\$12,47
		LLNL Mechanical Engineer		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$5,040.00	\$0.00	\$0.00	\$0

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ID		Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
449	1.3.1.1.6.4	FDR Stand ME	LLNL	ED&I	2	2 wks	\$5,040.00	\$0.00	\$0.00	\$5,040.00	\$4,939.20	\$2,494.80	\$12,474.
		LLNL Mechanical Engineer		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$5,040.00	\$0.00	\$0.00	\$0.
150	1.3.1.1.6.4	FDR Venture and Orfice ME	LLNL	ED&I	2	3 wks	\$7,560.00	\$0.00	\$0.00	\$7,560.00	\$7,408.80	\$3,742.20	\$18,711
\neg		LLNL Mechanical Engineer		ED&I	0	3 wks	\$0.00	\$0.00	\$0.00	\$7,560.00	\$0.00	\$0.00	\$0
51	1.3.1.1.6.4	FDR FDR Blower ME	LLNL	ED&I	2	1 wk	\$2,520.00	\$0.00	\$0.00	\$2,520.00	\$2,469.60	\$1,247.40	\$6,237
		LLNL Mechanical Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,520.00	\$0.00	\$0.00	\$0
52	1.3.1.1.6.4	FDR Hardware ME	LLNL	ED&I	2	2 wks	\$5,040.00	\$0.00	\$0.00	\$5,040.00	\$4,939.20	\$2,494.80	\$12,474
\exists		LLNL Mechanical Engineer		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$5,040.00	\$0.00	\$0.00	\$0
53	1.3.1.1.6.4	FDR Safety Note ME	LLNL	ED&I	2	4 wks	\$10,080.00	\$0.00	\$0.00	\$10,080.00	\$9,878.40	\$4,989.60	\$24,94
\dashv		LLNL Mechanical Engineer		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$10,080.00	\$0.00	\$0.00	\$6
54	1.3.1.1.6.4	FDR System Controller Engineering ME Drafing	LLNL	ED&I	2	0.6 wks	\$1,248.00	\$0.00	\$0.00	\$1,248.00	\$1,223.04	\$617.76	\$3,08
\exists		LLNL Mech Drafting/Design		ED&I	0	0.6 wks	\$0.00	\$0.00	\$0.00	\$1,248.00	\$0.00	\$0.00	\$6
55	1.3.1.1.6.4	FDR Manifold ME Drafing	LLNL	ED&I	2	0.2 wks	\$416.00	\$0.00	\$0.00	\$416.00	\$407.68	\$205.92	\$1,02
\exists		LLNL Mech Drafting/Design		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$416.00	\$0.00	\$0.00	\$
56	1.3.1.1.6.4	FDR Turbo Pumps Engineering ME Drafing	LLNL	ED&I	2	0.2 wks	\$416.00	\$0.00	\$0.00	\$416.00	\$407.68	\$205.92	\$1,02
\dashv		LLNL Mech Drafting/Design		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$416.00	\$0.00	\$0.00	\$
57	1.3.1.1.6.4	FDR Dry Pumps ME Drafing	LLNL	ED&I	2	0.2 wks	\$416.00	\$0.00	\$0.00	\$416.00	\$407.68	\$205.92	\$1,02
		LLNL Mech Drafting/Design		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$416.00	\$0.00	\$0.00	\$
58	1.3.1.1.6.4	FDR Chamber ME Drafing	LLNL	ED&I	2	0.6 wks	\$1,248.00	\$0.00	\$0.00	\$1,248.00	\$1,223.04	\$617.76	\$3,08
\dashv		LLNL Mech Drafting/Design		ED&I	0	0.6 wks	\$0.00	\$0.00	\$0.00	\$1,248.00	\$0.00	\$0.00	\$
59	1.3.1.1.6.4	FDR Stand ME Drafing	LLNL	ED&I	2	0.6 wks	\$1,248.00	\$0.00	\$0.00	\$1,248.00	\$1,223.04	\$617.76	\$3,08
		LLNL Mech Drafting/Design		ED&I	0	0.6 wks	\$0.00	\$0.00	\$0.00	\$1,248.00	\$0.00	\$0.00	\$
60	1.3.1.1.6.4	FDR Venture and Orfice ME Drafing	LLNL	ED&I	2	0.6 wks	\$1,248.00	\$0.00	\$0.00	\$1,248.00	\$1,223.04	\$617.76	\$3,08
		LLNL Mech Drafting/Design		ED&I	0	0.6 wks	\$0.00	\$0.00	\$0.00	\$1,248.00	\$0.00	\$0.00	\$
61	1.3.1.1.6.4	FDR Blower ME Drafing	LLNL	ED&I	2	0.2 wks	\$416.00	\$0.00	\$0.00	\$416.00	\$407.68	\$205.92	\$1,02
\dashv		LLNL Mech Drafting/Design		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$416.00	\$0.00	\$0.00	\$
52	1.3.1.1.6.4	FDR Hardware ME Drafing	LLNL	ED&I	2	1 wk	\$2,080.00	\$0.00	\$0.00	\$2,080.00	\$2,038.40	\$1,029.60	\$5,14
\exists		LLNL Mech Drafting/Design		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,080.00	\$0.00	\$0.00	\$
3	1.3.1.1.6.4	Computer Documentation & drafting	LLNL	ED&I	2	1 wk	\$2,160.00	\$0.00	\$0.00	\$2,160.00	\$2,116.80	\$1,069.20	\$5,34
\dashv		LLNL Physicist -Scientist		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,160.00	\$0.00	\$0.00	\$
64	1.3.1.1.6.4	Computer Interface Programming	LLNL	ED&I	2	8 wks	\$17,280.00	\$0.00	\$0.00	\$17,280.00	\$16,934.40	\$8,553.60	\$42,76
\dashv		LLNL Physicist -Scientist		ED&I	0	8 wks	\$0.00	\$0.00	\$0.00	\$17,280.00	\$0.00	\$0.00	\$
65	1.3.1.1.6.4	System Controller Programming	LLNL	ED&I	2	6 wks	\$12,960.00	\$0.00	\$0.00	\$12,960.00	\$12,700.80	\$6,415.20	\$32,07
\dashv		LLNL Physicist -Scientist		ED&I	0	6 wks	\$0.00	\$0.00	\$0.00	\$12,960.00	\$0.00	\$0.00	\$
66	1.3.1.1.6.4	Signal Analysis	LLNL	ED&I	2	6 wks	\$12,960.00	\$0.00	\$0.00	\$12,960.00	\$12,700.80	\$6,415.20	\$32,07

LCLS_CD1_TEC

ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		LLNL Physicist -Scientist		ED&I	0	6 wks	\$0.00	\$0.00	\$0.00	\$12,960.00	\$0.00	\$0.00	\$0.0
467	1.3.1.1.6.5	Gas Mixing System	LLNL		0	35.5 wks	\$81,040.00	\$0.00	\$0.00	\$81,040.00	\$79,419.20	\$40,114.80	\$200,574.0
468	1.3.1.1.6.5	Safety Note Design and Theory	LLNL	ED&I	2	1 wk	\$2,160.00	\$0.00	\$0.00	\$2,160.00	\$2,116.80	\$1,069.20	\$5,346.0
		LLNL Physicist -Scientist		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,160.00	\$0.00	\$0.00	\$0.0
3469	1.3.1.1.6.5	Safety Note Electrical Engineering	LLNL	ED&I	2	1 wk	\$2,160.00	\$0.00	\$0.00	\$2,160.00	\$2,116.80	\$1,069.20	\$5,346.0
		LLNL Physicist -Scientist		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,160.00	\$0.00	\$0.00	\$0.0
3470	1.3.1.1.6.5	Safety Note Drafting EE	LLNL	ED&I	2	1 wk	\$2,080.00	\$0.00	\$0.00	\$2,080.00	\$2,038.40	\$1,029.60	\$5,148.0
		LLNL Mech Drafting/Design		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,080.00	\$0.00	\$0.00	\$0.0
3471	1.3.1.1.6.5	Safety Note ME Engineering	LLNL	ED&I	2	4 wks	\$10,080.00	\$0.00	\$0.00	\$10,080.00	\$9,878.40	\$4,989.60	\$24,948.0
		LLNL Mechanical Engineer		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$10,080.00	\$0.00	\$0.00	\$0.0
3472	1.3.1.1.6.5	Safety Note Drafting ME	LLNL	ED&I	2	1 wk	\$2,080.00	\$0.00	\$0.00	\$2,080.00	\$2,038.40	\$1,029.60	\$5,148.0
		LLNL Mech Drafting/Design		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,080.00	\$0.00	\$0.00	\$0.0
3473	1.3.1.1.6.5	Safety Note Documentation	LLNL	ED&I	2	1 wk	\$1,520.00	\$0.00	\$0.00	\$1,520.00	\$1,489.60	\$752.40	\$3,762.0
		LLNL Administration		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$1,520.00	\$0.00	\$0.00	\$0.0
3474	1.3.1.1.6.5	Design and Theory	LLNL	ED&I	2	1 wk	\$2,160.00	\$0.00	\$0.00	\$2,160.00	\$2,116.80	\$1,069.20	\$5,346.0
		LLNL Physicist -Scientist		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,160.00	\$0.00	\$0.00	\$0.0
475	1.3.1.1.6.5	System Controller EE	LLNL	ED&I	2	4 wks	\$8,640.00	\$0.00	\$0.00	\$8,640.00	\$8,467.20	\$4,276.80	\$21,384.
		LLNL Physicist -Scientist		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$8,640.00	\$0.00	\$0.00	\$0.0
3476	1.3.1.1.6.5	System Power EE	LLNL	ED&I	2	2 wks	\$4,320.00	\$0.00	\$0.00	\$4,320.00	\$4,233.60	\$2,138.40	\$10,692.0
		LLNL Physicist -Scientist		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,320.00	\$0.00	\$0.00	\$0.0
3477	1.3.1.1.6.5	System Controller Drafting EE	LLNL	ED&I	2	1 wk	\$2,080.00	\$0.00	\$0.00	\$2,080.00	\$2,038.40	\$1,029.60	\$5,148.0
		LLNL Mech Drafting/Design		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,080.00	\$0.00	\$0.00	\$0.0
3478	1.3.1.1.6.5	System Power Drafting EE	LLNL	ED&I	2	1 wk	\$2,080.00	\$0.00	\$0.00	\$2,080.00	\$2,038.40	\$1,029.60	\$5,148.0
		LLNL Mech Drafting/Design		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,080.00	\$0.00	\$0.00	\$0.0
3479	1.3.1.1.6.5	System engineering ME	LLNL	ED&I	2	3 wks	\$7,560.00	\$0.00	\$0.00	\$7,560.00	\$7,408.80	\$3,742.20	\$18,711.0
		LLNL Mechanical Engineer		ED&I	0	3 wks	\$0.00	\$0.00	\$0.00	\$7,560.00	\$0.00	\$0.00	\$0.0
3480	1.3.1.1.6.5	-	LLNL	ED&I	2	2 wks	\$5,040.00	\$0.00	\$0.00	\$5,040.00	\$4,939.20	\$2,494.80	\$12,474.0
		LLNL Mechanical Engineer		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$5,040.00	\$0.00	\$0.00	\$0.0
3481	1.3.1.1.6.5		LLNL	ED&I	2	1 wk	\$2,520.00	\$0.00	\$0.00	\$2,520.00	\$2,469.60	\$1,247.40	\$6,237.0
		LLNL Mechanical Engineer	22.12	ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,520.00	\$0.00	\$0.00	\$0.0
3482	1.3.1.1.6.5	-	LLNL	ED&I			\$2,520.00	\$0.00	\$0.00	\$2,520.00	\$2,469.60	\$1,247.40	\$6,237.0
H0Z	1.3.1.1.0.5	Engineering Transfer Manifold ME LLNL Mechanical Engineer	LLINL	ED&I	2	1 wk	\$2,520.00	\$0.00	\$0.00	\$2,520.00	\$2,469.60	\$1,247.40	\$0.0
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3483	1.3.1.1.6.5		LLNL	ED&I	2	1 wk	\$2,520.00	\$0.00	\$0.00	\$2,520.00	\$2,469.60	\$1,247.40	\$6,237.0
		LLNL Mechanical Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,520.00	\$0.00	\$0.00	\$0.0
3484	1.3.1.1.6.5	Engineering Hardware ME	LLNL	ED&I	2	2 wks	\$5,040.00	\$0.00	\$0.00	\$5,040.00	\$4,939.20	\$2,494.80	\$12,474.0

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ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		LLNL Mechanical Engineer		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$5,040.00	\$0.00	\$0.00	\$0.00
3485	1.3.1.1.6.5	Engineering Hardware Blower ME	LLNL	ED&I	2	1 wk	\$2,520.00	\$0.00	\$0.00	\$2,520.00	\$2,469.60	\$1,247.40	\$6,237.00
		LLNL Mechanical Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,520.00	\$0.00	\$0.00	\$0.00
3486	1.3.1.1.6.5	System ME Drafing	LLNL	ED&I	2	1 wk	\$2,520.00	\$0.00	\$0.00	\$2,520.00	\$2,469.60	\$1,247.40	\$6,237.00
		LLNL Mechanical Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,520.00	\$0.00	\$0.00	\$0.00
3487	1.3.1.1.6.5	System Controller ME Drafing	LLNL	ED&I	2	1 wk	\$2,080.00	\$0.00	\$0.00	\$2,080.00	\$2,038.40	\$1,029.60	\$5,148.00
		LLNL Mech Drafting/Design		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,080.00	\$0.00	\$0.00	\$0.00
3488	1.3.1.1.6.5	Bottle Manifold ME Drafing	LLNL	ED&I	2	1 wk	\$2,080.00	\$0.00	\$0.00	\$2,080.00	\$2,038.40	\$1,029.60	\$5,148.00
		LLNL Mech Drafting/Design		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,080.00	\$0.00	\$0.00	\$0.00
3489	1.3.1.1.6.5	Transfer Manifold ME Drafing	LLNL	ED&I	2	1 wk	\$2,080.00	\$0.00	\$0.00	\$2,080.00	\$2,038.40	\$1,029.60	\$5,148.00
		LLNL Mech Drafting/Design		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,080.00	\$0.00	\$0.00	\$0.00
3490	1.3.1.1.6.5	Storage Tank ME Drafing	LLNL	ED&I	2	0.5 wks	\$1,040.00	\$0.00	\$0.00	\$1,040.00	\$1,019.20	\$514.80	\$2,574.00
		LLNL Mech Drafting/Design		ED&I	0	0.5 wks	\$0.00	\$0.00	\$0.00	\$1,040.00	\$0.00	\$0.00	\$0.00
3491	1.3.1.1.6.5	Hardware ME Drafing	LLNL	ED&I	2	1 wk	\$2,080.00	\$0.00	\$0.00	\$2,080.00	\$2,038.40	\$1,029.60	\$5,148.00
		LLNL Mech Drafting/Design		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,080.00	\$0.00	\$0.00	\$0.00
3492	1.3.1.1.6.5	Blower ME Drafing	LLNL	ED&I	2	1 wk	\$2,080.00	\$0.00	\$0.00	\$2,080.00	\$2,038.40	\$1,029.60	\$5,148.00
		LLNL Mech Drafting/Design		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,080.00	\$0.00	\$0.00	\$0.00
3493	1.3.1.1.6.6		LLNL		0	251.6 wks	\$580,040.00	\$0.00	\$0.00	\$580,040.00	\$568,439.20	\$287,119.80	\$1,435,599.00
3494	1.3.1.1.6.6	PDR Design and Theory	LLNL	ED&I	2	1 wk	\$2,160.00	\$0.00	\$0.00	\$2,160.00	\$2,116.80	\$1,069.20	\$5,346.00
		LLNL Physicist -Scientist		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,160.00	\$0.00	\$0.00	\$0.00
3495	1.3.1.1.6.6		LLNL	ED&I	2	1 wk	\$2,480.00	\$0.00	\$0.00	\$2,480.00	\$2,430.40	\$1,227.60	\$6,138.0
3495	1.3.1.1.6.6		LLNL										
		LLNL Electrical Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,480.00	\$0.00	\$0.00	\$0.00
3496	1.3.1.1.6.6	PDR Drafting EE	LLNL	ED&I	2	1 wk	\$2,080.00	\$0.00	\$0.00	\$2,080.00	\$2,038.40	\$1,029.60	\$5,148.0
		LLNL Mech Drafting/Design		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,080.00	\$0.00	\$0.00	\$0.00
3497	1.3.1.1.6.6	PDR ME Engineering	LLNL	ED&I	2	1 wk	\$2,520.00	\$0.00	\$0.00	\$2,520.00	\$2,469.60	\$1,247.40	\$6,237.00
		LLNL Mechanical Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,520.00	\$0.00	\$0.00	\$0.00
3498	1.3.1.1.6.6	PDR Drafting ME	LLNL	ED&I	2	1 wk	\$2,080.00	\$0.00	\$0.00	\$2,080.00	\$2,038.40	\$1,029.60	\$5,148.00
		LLNL Mech Drafting/Design		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,080.00	\$0.00	\$0.00	\$0.00
3499	1.3.1.1.6.6	FDR Design and Theory	LLNL	ED&I	2	1 wk	\$2,160.00	\$0.00	\$0.00	\$2,160.00	\$2,116.80	\$1,069.20	\$5,346.00
		LLNL Physicist -Scientist		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,160.00	\$0.00	\$0.00	\$0.00
3500	1.3.1.1.6.6	FDR Data Acquisition EE	LLNL	ED&I	2	1 wk	\$2,480.00	\$0.00	\$0.00	\$2,480.00	\$2,430.40	\$1,227.60	\$6,138.00
		LLNL Electrical Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,480.00	\$0.00	\$0.00	\$0.00
3501	1.3.1.1.6.6	FDR Controls I/F EE	LLNL	ED&I	2	1 wk	\$2,480.00	\$0.00	\$0.00	\$2,480.00	\$2,430.40	\$1,227.60	\$6,138.00
		LLNL Electrical Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,480.00	\$0.00	\$0.00	\$0.00
3502	1.3.1.1.6.6	FDR Motors EE	LLNL	ED&I	2	1 wk	\$2,480.00	\$0.00	\$0.00	\$2,480.00	\$2,430.40	\$1,227.60	\$6,138.00
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ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		LLNL Electrical Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,480.00	\$0.00	\$0.00	\$0.0
503	1.3.1.1.6.6	FDR Data Acqusition Drafting EE	LLNL	ED&I	2	1 wk	\$2,080.00	\$0.00	\$0.00	\$2,080.00	\$2,038.40	\$1,029.60	\$5,148.0
		LLNL Mech Drafting/Design		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,080.00	\$0.00	\$0.00	\$0.0
504	1.3.1.1.6.6	FDR Controls I/F Drafting EE	LLNL	ED&I	2	1 wk	\$2,080.00	\$0.00	\$0.00	\$2,080.00	\$2,038.40	\$1,029.60	\$5,148.
		LLNL Mech Drafting/Design		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,080.00	\$0.00	\$0.00	\$0.
505	1.3.1.1.6.6	FDR Tank ME	LLNL	ED&I	2	1 wk	\$2,520.00	\$0.00	\$0.00	\$2,520.00	\$2,469.60	\$1,247.40	\$6,237.
		LLNL Mechanical Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,520.00	\$0.00	\$0.00	\$0.
506	1.3.1.1.6.6	FDR Turbo System ME	LLNL	ED&I	2	1 wk	\$2,520.00	\$0.00	\$0.00	\$2,520.00	\$2,469.60	\$1,247.40	\$6,237.
		LLNL Mechanical Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,520.00	\$0.00	\$0.00	\$0.
507	1.3.1.1.6.6	FDR Stand ME	LLNL	ED&I	2	1 wk	\$2,520.00	\$0.00	\$0.00	\$2,520.00	\$2,469.60	\$1,247.40	\$6,237
		LLNL Mechanical Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,520.00	\$0.00	\$0.00	\$0.
508	1.3.1.1.6.6	FDR DI Imager insertion stage ME	LLNL	ED&I	2	1 wk	\$2,520.00	\$0.00	\$0.00	\$2,520.00	\$2,469.60	\$1,247.40	\$6,237
		LLNL Mechanical Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,520.00	\$0.00	\$0.00	\$0.
509	1.3.1.1.6.6	FDR SF Imager insertion stage ME	LLNL	ED&I	2	1 wk	\$2,520.00	\$0.00	\$0.00	\$2,520.00	\$2,469.60	\$1,247.40	\$6,237
		LLNL Mechanical Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,520.00	\$0.00	\$0.00	\$0.
10	1.3.1.1.6.6	FDR Spare insertion stage ME	LLNL	ED&I	2	1 wk	\$2,520.00	\$0.00	\$0.00	\$2,520.00	\$2,469.60	\$1,247.40	\$6,237
		LLNL Mechanical Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,520.00	\$0.00	\$0.00	\$0
511	1.3.1.1.6.6	-	LLNL	ED&I	2	1 wk	\$2,520.00	\$0.00	\$0.00	\$2,520.00	\$2,469.60	\$1,247.40	\$6,237
		LLNL Mechanical Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,520.00	\$0.00	\$0.00	\$0.
512	1.3.1.1.6.6	, and the second se	LLNL	ED&I	2	1 wk	\$2,520.00	\$0.00	\$0.00	\$2,520.00	\$2,469.60	\$1,247.40	\$6,237
712	1.3.1.1.0.0	LLNL Mechanical Engineer	LLINE	ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,520.00	\$0.00	\$0.00	\$0,237
513	1.3.1.1.6.6		LLNL	ED&I	2	1 wk	\$2,080.00	\$0.00	\$0.00	\$2,080.00	\$2,038.40	\$1,029.60	\$5,148
513	1.3.1.1.6.6	_	LLNL										
		LLNL Mech Drafting/Design		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,080.00	\$0.00	\$0.00	\$0
514	1.3.1.1.6.6		LLNL	ED&I	2	1 wk	\$2,080.00	\$0.00	\$0.00	\$2,080.00	\$2,038.40	\$1,029.60	\$5,148
		LLNL Mech Drafting/Design		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,080.00	\$0.00	\$0.00	\$0.
515	1.3.1.1.6.6	FDR SF Imager insertion stage ME Drafting	LLNL	ED&I	2	1 wk	\$2,080.00	\$0.00	\$0.00	\$2,080.00	\$2,038.40	\$1,029.60	\$5,148
		LLNL Mech Drafting/Design		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,080.00	\$0.00	\$0.00	\$0
516	1.3.1.1.6.6	FDR Spare insertion stage ME Drafting	LLNL	ED&I	2	1 wk	\$2,080.00	\$0.00	\$0.00	\$2,080.00	\$2,038.40	\$1,029.60	\$5,148
		LLNL Mech Drafting/Design		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,080.00	\$0.00	\$0.00	\$0
517	1.3.1.1.6.7	Ion Pumped Diagnostic Tanks	LLNL		0	15.8 wks	\$35,760.00	\$0.00	\$0.00	\$35,760.00	\$35,044.80	\$17,701.20	\$88,506
18	1.3.1.1.6.7	PDR Design and Theory	LLNL	ED&I	2	1 wk	\$2,160.00	\$0.00	\$0.00	\$2,160.00	\$2,116.80	\$1,069.20	\$5,346
		LLNL Physicist -Scientist		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,160.00	\$0.00	\$0.00	\$0.
519	1.3.1.1.6.7	PDR Electrical Engineering	LLNL	ED&I	2	1 wk	\$2,480.00	\$0.00	\$0.00	\$2,480.00	\$2,430.40	\$1,227.60	\$6,138
		LLNL Electrical Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,480.00	\$0.00	\$0.00	\$0
520	1.3.1.1.6.7	PDR Drafting EE	LLNL	ED&I	2	1 wk	\$2,080.00	\$0.00	\$0.00	\$2.080.00	\$2,038.40	\$1,029.60	\$5,148

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ID	CWBS	Task Name LLNL Mech Drafting/Design	OBS	PHASE ED&I	Risk	Units 1 wk	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost \$2,080.00	Overhead Cost \$0.00	Contingency Cost \$0.00	Total Cost \$0.00
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3521	1.3.1.1.6.7		LLNL	ED&I	2	1 wk	\$2,520.00	\$0.00	\$0.00	\$2,520.00	\$2,469.60	\$1,247.40	\$6,237.00
		LLNL Mechanical Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,520.00	\$0.00	\$0.00	\$0.00
3522	1.3.1.1.6.7	PDR Drafting ME	LLNL	ED&I	2	1 wk	\$2,080.00	\$0.00	\$0.00	\$2,080.00	\$2,038.40	\$1,029.60	\$5,148.00
		LLNL Mech Drafting/Design		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,080.00	\$0.00	\$0.00	\$0.00
3523	1.3.1.1.6.7	Design and Theory	LLNL	ED&I	2	1 wk	\$2,160.00	\$0.00	\$0.00	\$2,160.00	\$2,116.80	\$1,069.20	\$5,346.00
		LLNL Physicist -Scientist		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,160.00	\$0.00	\$0.00	\$0.00
3524	1.3.1.1.6.7	Data Acqusition EE	LLNL	ED&I	2	0.4 wks	\$992.00	\$0.00	\$0.00	\$992.00	\$972.16	\$491.04	\$2,455.20
		LLNL Electrical Engineer		ED&I	0	0.4 wks	\$0.00	\$0.00	\$0.00	\$992.00	\$0.00	\$0.00	\$0.00
3525	1.3.1.1.6.7	Controls I/F EE	LLNL	ED&I	2	0.4 wks	\$992.00	\$0.00	\$0.00	\$992.00	\$972.16	\$491.04	\$2,455.20
		LLNL Electrical Engineer		ED&I	0	0.4 wks	\$0.00	\$0.00	\$0.00	\$992.00	\$0.00	\$0.00	\$0.00
3526	1.3.1.1.6.7	-	LLNL	ED&I	2	0.2 wks	\$496.00	\$0.00	\$0.00	\$496.00	\$486.08	\$245.52	\$1,227.60
0020	1.0.1.1.0.7	LLNL Electrical Engineer	CENT	ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$496.00	\$0.00	\$0.00	\$0.00
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3527	1.3.1.1.6.7	Data Acqusition Drafting EE	LLNL	ED&I	2	1 wk	\$2,080.00	\$0.00	\$0.00	\$2,080.00	\$2,038.40	\$1,029.60	\$5,148.00
		LLNL Mech Drafting/Design		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,080.00	\$0.00	\$0.00	\$0.00
3528	1.3.1.1.6.7	Controls I/F Drafting EE	LLNL	ED&I	2	1 wk	\$2,080.00	\$0.00	\$0.00	\$2,080.00	\$2,038.40	\$1,029.60	\$5,148.00
		LLNL Mech Drafting/Design		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,080.00	\$0.00	\$0.00	\$0.00
3529	1.3.1.1.6.7	Tank ME	LLNL	ED&I	2	1 wk	\$2,520.00	\$0.00	\$0.00	\$2,520.00	\$2,469.60	\$1,247.40	\$6,237.00
		LLNL Mechanical Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,520.00	\$0.00	\$0.00	\$0.00
3530	1.3.1.1.6.7	Ion System ME	LLNL	ED&I	2	1 wk	\$2,520.00	\$0.00	\$0.00	\$2,520.00	\$2,469.60	\$1,247.40	\$6,237.00
		LLNL Mechanical Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,520.00	\$0.00	\$0.00	\$0.00
3531	1.3.1.1.6.7	Stand ME	LLNL	ED&I	2	1 wk	\$2,520.00	\$0.00	\$0.00	\$2,520.00	\$2,469.60	\$1,247.40	\$6,237.00
		LLNL Mechanical Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,520.00	\$0.00	\$0.00	\$0.00
3532	1.3.1.1.6.7	DI Imager insertion stage ME	LLNL	ED&I	2	0.2 wks	\$504.00	\$0.00	\$0.00	\$504.00	\$493.92	\$249.48	\$1,247.40
		LLNL Mechanical Engineer		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$504.00	\$0.00	\$0.00	\$0.00
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3533	1.3.1.1.6.7	-	LLNL	ED&I	2	0.2 wks	\$504.00	\$0.00	\$0.00	\$504.00	\$493.92	\$249.48	\$1,247.40
		LLNL Mechanical Engineer		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$504.00	\$0.00	\$0.00	\$0.00
3534	1.3.1.1.6.7	Tank ME Drafting	LLNL	ED&I	2	1 wk	\$2,080.00	\$0.00	\$0.00	\$2,080.00	\$2,038.40	\$1,029.60	\$5,148.00
		LLNL Mech Drafting/Design		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,080.00	\$0.00	\$0.00	\$0.00
3535	1.3.1.1.6.7	Ion System ME Drafting	LLNL	ED&I	2	1 wk	\$2,080.00	\$0.00	\$0.00	\$2,080.00	\$2,038.40	\$1,029.60	\$5,148.00
		LLNL Mech Drafting/Design		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,080.00	\$0.00	\$0.00	\$0.00
3536	1.3.1.1.6.7	Stand ME Drafting	LLNL	ED&I	2	1 wk	\$2,080.00	\$0.00	\$0.00	\$2,080.00	\$2,038.40	\$1,029.60	\$5,148.00
		LLNL Mech Drafting/Design		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,080.00	\$0.00	\$0.00	\$0.00
3537	1.3.1.1.6.7	DI Imager insertion stage ME Drafting	LLNL	ED&I	2	0.2 wks	\$416.00	\$0.00	\$0.00	\$416.00	\$407.68	\$205.92	\$1,029.60
		LLNL Mech Drafting/Design		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$416.00	\$0.00	\$0.00	\$0.00
		LLIVE INJECTI DIATUTION/DESIGN		EDQI		U.Z WKS	φυ.υυ	φυ.υυ	φ0.00	φ410.00	φυ.υυ	φυ.υυ	φ0.00

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ID		Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
3538	1.3.1.1.6.7	SF Imager insertion stage ME Drafting	LLNL	ED&I	2	0.2 wks	\$416.00	\$0.00	\$0.00	\$416.00	\$407.68	\$205.92	\$1,029
		LLNL Mech Drafting/Design		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$416.00	\$0.00	\$0.00	\$0.
539	1.3.1.1.6.8	Diagnostic Tank A4 1	LLNL		0	23 wks	\$52,680.00	\$0.00	\$0.00	\$52,680.00	\$51,626.40	\$26,076.60	\$130,383.
40	1.3.1.1.6.8	PDR Design and Theory	LLNL	ED&I	2	1 wk	\$2,160.00	\$0.00	\$0.00	\$2,160.00	\$2,116.80	\$1,069.20	\$5,346
\neg		LLNL Physicist -Scientist		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,160.00	\$0.00	\$0.00	\$0
41	1.3.1.1.6.8	PDR Electrical Engineering	LLNL	ED&I	2	1 wk	\$2,480.00	\$0.00	\$0.00	\$2,480.00	\$2,430.40	\$1,227.60	\$6,138
		LLNL Electrical Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,480.00	\$0.00	\$0.00	\$0
42	1.3.1.1.6.8	PDR Drafting EE	LLNL	ED&I	2	1 wk	\$2,080.00	\$0.00	\$0.00	\$2,080.00	\$2,038.40	\$1,029.60	\$5,14
\dashv		LLNL Mech Drafting/Design		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,080.00	\$0.00	\$0.00	\$6
43	1.3.1.1.6.8	PDR ME Engineering	LLNL	ED&I	2	1 wk	\$2,520.00	\$0.00	\$0.00	\$2,520.00	\$2,469.60	\$1,247.40	\$6,23
\dashv		LLNL Mechanical Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,520.00	\$0.00	\$0.00	\$6
44	1.3.1.1.6.8	PDR Drafting ME	LLNL	ED&I	2	1 wk	\$2,080.00	\$0.00	\$0.00	\$2,080.00	\$2,038.40	\$1,029.60	\$5,14
\dashv		LLNL Mech Drafting/Design		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,080.00	\$0.00	\$0.00	\$6
45	1.3.1.1.6.8	FDR Design and Theory	LLNL	ED&I	2	1 wk	\$2,160.00	\$0.00	\$0.00	\$2,160.00	\$2,116.80	\$1,069.20	\$5,34
\dashv		LLNL Physicist -Scientist		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,160.00	\$0.00	\$0.00	\$
46	1.3.1.1.6.8	FDR Data Acqusition EE	LLNL	ED&I	2	1 wk	\$2,480.00	\$0.00	\$0.00	\$2,480.00	\$2,430.40	\$1,227.60	\$6,13
\dashv		LLNL Electrical Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,480.00	\$0.00	\$0.00	\$
47	1.3.1.1.6.8	FDR Controls I/F EE	LLNL	ED&I	2	1 wk	\$2,480.00	\$0.00	\$0.00	\$2,480.00	\$2,430.40	\$1,227.60	\$6,13
\dashv		LLNL Electrical Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,480.00	\$0.00	\$0.00	\$
48	1.3.1.1.6.8	FDR Motors EE	LLNL	ED&I	2	1 wk	\$2,480.00	\$0.00	\$0.00	\$2,480.00	\$2,430.40	\$1,227.60	\$6,13
\dashv		LLNL Electrical Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,480.00	\$0.00	\$0.00	\$
49	1.3.1.1.6.8	FDR Drafting EE	LLNL		2	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$
50	1.3.1.1.6.8	FDR Data Acqusition Drafting EE	LLNL	ED&I	2	1 wk	\$2,080.00	\$0.00	\$0.00	\$2,080.00	\$2,038.40	\$1,029.60	\$5,14
\dashv		LLNL Mech Drafting/Design		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,080.00	\$0.00	\$0.00	\$
551	1.3.1.1.6.8	FDR Controls I/F Drafting EE	LLNL	ED&I	2	1 wk	\$2,080.00	\$0.00	\$0.00	\$2,080.00	\$2,038.40	\$1,029.60	\$5,14
\dashv		LLNL Mech Drafting/Design		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,080.00	\$0.00	\$0.00	\$
52	1.3.1.1.6.8	FDR Tank ME	LLNL	ED&I	2	1 wk	\$2,520.00	\$0.00	\$0.00	\$2,520.00	\$2,469.60	\$1,247.40	\$6,23
\dashv		LLNL Mechanical Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,520.00	\$0.00	\$0.00	\$
53	1.3.1.1.6.8	FDR Turbo System ME	LLNL	ED&I	2	1 wk	\$2,520.00	\$0.00	\$0.00	\$2,520.00	\$2,469.60	\$1,247.40	\$6,23
\dashv		LLNL Mechanical Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,520.00	\$0.00	\$0.00	\$
54	1.3.1.1.6.8	FDR Stand ME	LLNL	ED&I	2	1 wk	\$2,520.00	\$0.00	\$0.00	\$2,520.00	\$2,469.60	\$1,247.40	\$6,23
-		LLNL Mechanical Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,520.00	\$0.00	\$0.00	\$
555	1.3.1.1.6.8	FDR DI Imager insertion stage ME	LLNL	ED&I	2	1 wk	\$2,520.00	\$0.00	\$0.00	\$2,520.00	\$2,469.60	\$1,247.40	\$6,23
\dashv		LLNL Mechanical Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,520.00	\$0.00	\$0.00	\$
556	1.3.1.1.6.8	FDR Rail Alignment Stages ME	LLNL	ED&I	2	1 wk	\$2,520.00	\$0.00	\$0.00	\$2,520.00	\$2,469.60	\$1,247.40	\$6,23

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ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		LLNL Mechanical Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,520.00	\$0.00	\$0.00	\$0.0
557	1.3.1.1.6.8	FDR Optics and Aperure Stage ME	LLNL	ED&I	2	1 wk	\$2,520.00	\$0.00	\$0.00	\$2,520.00	\$2,469.60	\$1,247.40	\$6,237.0
		LLNL Mechanical Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,520.00	\$0.00	\$0.00	\$0.
558	1.3.1.1.6.8	FDR Tank ME Drafing	LLNL	ED&I	2	1 wk	\$2,080.00	\$0.00	\$0.00	\$2,080.00	\$2,038.40	\$1,029.60	\$5,148.
		LLNL Mech Drafting/Design		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,080.00	\$0.00	\$0.00	\$0.
559	1.3.1.1.6.8	FDR Turbo System ME Drafing	LLNL	ED&I	2	1 wk	\$2,080.00	\$0.00	\$0.00	\$2,080.00	\$2,038.40	\$1,029.60	\$5,148
		LLNL Mech Drafting/Design		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,080.00	\$0.00	\$0.00	\$0.
60	1.3.1.1.6.8	FDR Stand ME Drafing	LLNL	ED&I	2	1 wk	\$2,080.00	\$0.00	\$0.00	\$2,080.00	\$2,038.40	\$1,029.60	\$5,148
		LLNL Mech Drafting/Design		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,080.00	\$0.00	\$0.00	\$0
61	1.3.1.1.6.8	FDR DI Imager insertion stage ME Drafing	LLNL	ED&I	2	1 wk	\$2,080.00	\$0.00	\$0.00	\$2,080.00	\$2,038.40	\$1,029.60	\$5,148
		LLNL Mech Drafting/Design		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,080.00	\$0.00	\$0.00	\$0
62	1.3.1.1.6.8	FDR Rail Alignment Stages ME Drafing	LLNL	ED&I	2	1 wk	\$2,080.00	\$0.00	\$0.00	\$2,080.00	\$2,038.40	\$1,029.60	\$5,148
		LLNL Mech Drafting/Design		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,080.00	\$0.00	\$0.00	\$0
63	1.3.1.1.6.8	FDR Optics and Aperure Stage ME Drafing	LLNL	ED&I	2	1 wk	\$2,080.00	\$0.00	\$0.00	\$2,080.00	\$2,038.40	\$1,029.60	\$5,148
		LLNL Mech Drafting/Design		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,080.00	\$0.00	\$0.00	\$0
64	1.3.1.1.6.9	Total Energy	LLNL		0	67.6 wks	\$156,584.00	\$0.00	\$0.00	\$156,584.00	\$153,452.32	\$77,509.08	\$387,545
65	1.3.1.1.6.9	PDR Thermal modeling	LLNL	ED&I	2	2 wks	\$4,320.00	\$0.00	\$0.00	\$4,320.00	\$4,233.60	\$2,138.40	\$10,692
		LLNL Physicist -Scientist		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,320.00	\$0.00	\$0.00	\$0
66	1.3.1.1.6.9	PDR X Ray Absorber EE	LLNL	ED&I	2	0.2 wks	\$496.00	\$0.00	\$0.00	\$496.00	\$486.08	\$245.52	\$1,227
		LLNL Electrical Engineer	LEITE	ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$496.00	\$0.00	\$0.00	\$0
0.7	101100	-	LLNL				\$496.00						
67	1.3.1.1.6.9	PDR Black Body EE	LLNL	ED&I	2	0.2 wks		\$0.00	\$0.00	\$496.00	\$486.08	\$245.52	\$1,227
		LLNL Electrical Engineer		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$496.00	\$0.00	\$0.00	\$0
68	1.3.1.1.6.9	PDR Front End Electronics EE	LLNL	ED&I	2	0.1 wks	\$248.00	\$0.00	\$0.00	\$248.00	\$243.04	\$122.76	\$613
		LLNL Electrical Engineer		ED&I	0	0.1 wks	\$0.00	\$0.00	\$0.00	\$248.00	\$0.00	\$0.00	\$0
69	1.3.1.1.6.9	PDR Signal Processing Electronics EE	LLNL	ED&I	2	0.1 wks	\$248.00	\$0.00	\$0.00	\$248.00	\$243.04	\$122.76	\$613
		LLNL Electrical Engineer		ED&I	0	0.1 wks	\$0.00	\$0.00	\$0.00	\$248.00	\$0.00	\$0.00	\$0
70	1.3.1.1.6.9	PDR Computer I/F Electronics EE	LLNL	ED&I	2	0.1 wks	\$248.00	\$0.00	\$0.00	\$248.00	\$243.04	\$122.76	\$613
		LLNL Electrical Engineer		ED&I	0	0.1 wks	\$0.00	\$0.00	\$0.00	\$248.00	\$0.00	\$0.00	\$0
71	1.3.1.1.6.9	PDR Front End Electronics Drafting EE	LLNL	ED&I	2	0.1 wks	\$208.00	\$0.00	\$0.00	\$208.00	\$203.84	\$102.96	\$514
		LLNL Mech Drafting/Design		ED&I	0	0.1 wks	\$0.00	\$0.00	\$0.00	\$208.00	\$0.00	\$0.00	\$6
72	1.3.1.1.6.9	PDR Signal Processing Electronics Drafting EE	LLNL	ED&I	2	0.1 wks	\$208.00	\$0.00	\$0.00	\$208.00	\$203.84	\$102.96	\$51
		LLNL Mech Drafting/Design		ED&I	0	0.1 wks	\$0.00	\$0.00	\$0.00	\$208.00	\$0.00	\$0.00	\$0
73	1.3.1.1.6.9	PDR Absorber Drafting EE	LLNL	ED&I	2	0.1 wks	\$208.00	\$0.00	\$0.00	\$208.00	\$203.84	\$102.96	\$514
		LLNL Mech Drafting/Design		ED&I	0	0.1 wks	\$0.00	\$0.00	\$0.00	\$208.00	\$0.00	\$0.00	\$0
574	1.3.1.1.6.9	PDR X Ray Absorber ME	LLNL	ED&I	2	0.2 wks	\$504.00	\$0.00	\$0.00	\$504.00	\$493.92	\$249.48	\$1,247

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ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		LLNL Mechanical Engineer		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$504.00	\$0.00	\$0.00	\$0.0
575	1.3.1.1.6.9	PDR Thermal Semiconductor ME	LLNL	ED&I	2	0.2 wks	\$504.00	\$0.00	\$0.00	\$504.00	\$493.92	\$249.48	\$1,247.
		LLNL Mechanical Engineer		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$504.00	\$0.00	\$0.00	\$0.0
576	1.3.1.1.6.9	PDR Cold Head ME	LLNL	ED&I	2	0.2 wks	\$504.00	\$0.00	\$0.00	\$504.00	\$493.92	\$249.48	\$1,247.
		LLNL Mechanical Engineer		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$504.00	\$0.00	\$0.00	\$0.
577	1.3.1.1.6.9	PDR Black Body ME	LLNL	ED&I	2	0.2 wks	\$504.00	\$0.00	\$0.00	\$504.00	\$493.92	\$249.48	\$1,247.
		LLNL Mechanical Engineer		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$504.00	\$0.00	\$0.00	\$0.
578	1.3.1.1.6.9	PDR Pedistal mount ME	LLNL	ED&I	2	0.2 wks	\$504.00	\$0.00	\$0.00	\$504.00	\$493.92	\$249.48	\$1,247
		LLNL Mechanical Engineer		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$504.00	\$0.00	\$0.00	\$0.
79	1.3.1.1.6.9	PDR Thermal Semiconductor ME	LLNL	ED&I	2	0.2 wks	\$504.00	\$0.00	\$0.00	\$504.00	\$493.92	\$249.48	\$1,247
		LLNL Mechanical Engineer		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$504.00	\$0.00	\$0.00	\$0.
80	1.3.1.1.6.9	PDR Temperature probes ME	LLNL	ED&I	2	0.2 wks	\$504.00	\$0.00	\$0.00	\$504.00	\$493.92	\$249.48	\$1,247
		LLNL Mechanical Engineer		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$504.00	\$0.00	\$0.00	\$0
81	1.3.1.1.6.9	PDR Water absorber ME	LLNL	ED&I	2	0.2 wks	\$416.00	\$0.00	\$0.00	\$416.00	\$407.68	\$205.92	\$1,029
		LLNL Mech Drafting/Design		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$416.00	\$0.00	\$0.00	\$0
82	1.3.1.1.6.9	PDR Absorber ME Drafting	LLNL	ED&I	2	0.2 wks	\$416.00	\$0.00	\$0.00	\$416.00	\$407.68	\$205.92	\$1,029
		LLNL Mech Drafting/Design		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$416.00	\$0.00	\$0.00	\$0
83	1.3.1.1.6.9		LLNL	ED&I	2	0.2 wks	\$416.00	\$0.00	\$0.00	\$416.00	\$407.68	\$205.92	\$1,029
		LLNL Mech Drafting/Design		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$416.00	\$0.00	\$0.00	\$0
584	1.3.1.1.6.9		LLNL	ED&I	2	0.2 wks	\$416.00	\$0.00	\$0.00	\$416.00	\$407.68	\$205.92	\$1,029
704	1.3.1.1.0.9	LLNL Mech Drafting/Design	LLINE	ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$416.00	\$0.00	\$0.00	\$1,028
585	1.3.1.1.6.9		LLNL	ED&I	2	0.2 wks	\$416.00	\$0.00	\$0.00	\$416.00	\$407.68	\$205.92	\$1,029
000	1.3.1.1.6.9	· · ·	LLINL	ED&I			\$416.00	\$0.00	\$0.00		\$0.00	\$0.00	
		LLNL Mech Drafting/Design			0	0.2 wks				\$416.00			\$0
586	1.3.1.1.6.9	-	LLNL	ED&I	2	0.2 wks	\$416.00	\$0.00	\$0.00	\$416.00	\$407.68	\$205.92	\$1,029
		LLNL Mech Drafting/Design		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$416.00	\$0.00	\$0.00	\$0
87	1.3.1.1.6.9		LLNL	ED&I	2	6 wks	\$12,960.00	\$0.00	\$0.00	\$12,960.00	\$12,700.80	\$6,415.20	\$32,076
		LLNL Physicist -Scientist		ED&I	0	6 wks	\$0.00	\$0.00	\$0.00	\$12,960.00	\$0.00	\$0.00	\$0
88	1.3.1.1.6.9	FDR X Ray Absorber EE	LLNL	ED&I	2	2 wks	\$4,960.00	\$0.00	\$0.00	\$4,960.00	\$4,860.80	\$2,455.20	\$12,276
		LLNL Electrical Engineer		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,960.00	\$0.00	\$0.00	\$0
89	1.3.1.1.6.9	FDR Black Body EE	LLNL	ED&I	2	3 wks	\$7,440.00	\$0.00	\$0.00	\$7,440.00	\$7,291.20	\$3,682.80	\$18,414
		LLNL Electrical Engineer		ED&I	0	3 wks	\$0.00	\$0.00	\$0.00	\$7,440.00	\$0.00	\$0.00	\$0
90	1.3.1.1.6.9	FDR Front End Electronics EE	LLNL	ED&I	2	3 wks	\$7,440.00	\$0.00	\$0.00	\$7,440.00	\$7,291.20	\$3,682.80	\$18,414
		LLNL Electrical Engineer		ED&I	0	3 wks	\$0.00	\$0.00	\$0.00	\$7,440.00	\$0.00	\$0.00	\$0
591	1.3.1.1.6.9	FDR Signal Processing Electronics EE	LLNL	ED&I	2	2 wks	\$4,960.00	\$0.00	\$0.00	\$4,960.00	\$4,860.80	\$2,455.20	\$12,276
		LLNL Electrical Engineer		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,960.00	\$0.00	\$0.00	\$0.

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ID		Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
3592	1.3.1.1.6.9	FDR Computer I/F Electronics EE	LLNL	ED&I	2	2 wks	\$4,160.00	\$0.00	\$0.00	\$4,160.00	\$4,076.80	\$2,059.20	\$10,296.0
		LLNL Mech Drafting/Design		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,160.00	\$0.00	\$0.00	\$0.0
593	1.3.1.1.6.9	FDR Front End Electronics Drafting EE	LLNL	ED&I	2	1 wk	\$2,080.00	\$0.00	\$0.00	\$2,080.00	\$2,038.40	\$1,029.60	\$5,148.0
		LLNL Mech Drafting/Design		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,080.00	\$0.00	\$0.00	\$0.0
594	1.3.1.1.6.9	FDR Signal Processing Electronics Drafting EE	LLNL	ED&I	2	1 wk	\$2,080.00	\$0.00	\$0.00	\$2,080.00	\$2,038.40	\$1,029.60	\$5,148.
		LLNL Mech Drafting/Design		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,080.00	\$0.00	\$0.00	\$0.
595	1.3.1.1.6.9	FDR X Ray Absorber Drafting EE	LLNL	ED&I	2	1 wk	\$2,520.00	\$0.00	\$0.00	\$2,520.00	\$2,469.60	\$1,247.40	\$6,237.
		LLNL Mechanical Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,520.00	\$0.00	\$0.00	\$0.
596	1.3.1.1.6.9	FDR X ray Absorber ME	LLNL	ED&I	2	2 wks	\$5,040.00	\$0.00	\$0.00	\$5,040.00	\$4,939.20	\$2,494.80	\$12,474.
		LLNL Mechanical Engineer		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$5,040.00	\$0.00	\$0.00	\$0.
597	1.3.1.1.6.9	-	LLNL	ED&I	2	4 wks	\$10,080.00	\$0.00	\$0.00	\$10,080.00	\$9,878.40	\$4,989.60	\$24,948.
		LLNL Mechanical Engineer	ļ —	ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$10,080.00	\$0.00	\$0.00	\$0.
98	1.3.1.1.6.9	-	LLNL	ED&I	2	3 wks	\$7,560.00	\$0.00	\$0.00	\$7,560.00	\$7,408.80	\$3,742.20	\$18,711
90	1.3.1.1.0.9		LLINL										\$10,711
		LLNL Mechanical Engineer		ED&I	0	3 wks	\$0.00	\$0.00	\$0.00	\$7,560.00	\$0.00	\$0.00	
99	1.3.1.1.6.9	FDR Black Body ME	LLNL	ED&I	2	3 wks	\$7,560.00	\$0.00	\$0.00	\$7,560.00	\$7,408.80	\$3,742.20	\$18,711
		LLNL Mechanical Engineer		ED&I	0	3 wks	\$0.00	\$0.00	\$0.00	\$7,560.00	\$0.00	\$0.00	\$0
00	1.3.1.1.6.9	FDR Pedistal mount ME	LLNL	ED&I	2	3 wks	\$7,560.00	\$0.00	\$0.00	\$7,560.00	\$7,408.80	\$3,742.20	\$18,711
		LLNL Mechanical Engineer		ED&I	0	3 wks	\$0.00	\$0.00	\$0.00	\$7,560.00	\$0.00	\$0.00	\$0
601	1.3.1.1.6.9	FDR Temperature probes ME	LLNL	ED&I	2	2 wks	\$5,040.00	\$0.00	\$0.00	\$5,040.00	\$4,939.20	\$2,494.80	\$12,474
		LLNL Mechanical Engineer		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$5,040.00	\$0.00	\$0.00	\$0
02	1.3.1.1.6.9	FDR Water absorber ME	LLNL	ED&I	2	3 wks	\$7,560.00	\$0.00	\$0.00	\$7,560.00	\$7,408.80	\$3,742.20	\$18,711
		LLNL Mechanical Engineer		ED&I	0	3 wks	\$0.00	\$0.00	\$0.00	\$7,560.00	\$0.00	\$0.00	\$0
603	1.3.1.1.6.9	FDR X ray Absorber ME Drafting	LLNL	ED&I	2	1 wk	\$2,080.00	\$0.00	\$0.00	\$2,080.00	\$2,038.40	\$1,029.60	\$5,148
		LLNL Mech Drafting/Design		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,080.00	\$0.00	\$0.00	\$0
604	1.3.1.1.6.9	FDR Thermal Semiconductor ME Drafting	LLNL	ED&I	2	1 wk	\$2,080.00	\$0.00	\$0.00	\$2,080.00	\$2,038.40	\$1,029.60	\$5,148
		LLNL Mech Drafting/Design		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,080.00	\$0.00	\$0.00	\$0
05	1.3.1.1.6.9		LLNL	ED&I	2	1 wk	\$2,080.00	\$0.00	\$0.00	\$2,080.00	\$2,038.40	\$1,029.60	\$5,148
	1.0.1.1.0.0	LLNL Mech Drafting/Design	LLIVE	ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,080.00	\$0.00	\$0.00	\$0
	101100											.	
606	1.3.1.1.6.9	· •	LLNL	ED&I	2	1 wk	\$2,080.00	\$0.00	\$0.00	\$2,080.00	\$2,038.40	\$1,029.60	\$5,148
		LLNL Mech Drafting/Design		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,080.00	\$0.00	\$0.00	\$0
07	1.3.1.1.6.9		LLNL	ED&I	2	1 wk	\$2,080.00	\$0.00	\$0.00	\$2,080.00	\$2,038.40	\$1,029.60	\$5,148
		LLNL Mech Drafting/Design		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,080.00	\$0.00	\$0.00	\$0
808	1.3.1.1.6.9	FDR Water Absorber ME Drafting	LLNL	ED&I	2	1 wk	\$2,080.00	\$0.00	\$0.00	\$2,080.00	\$2,038.40	\$1,029.60	\$5,148
		LLNL Mech Drafting/Design		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,080.00	\$0.00	\$0.00	\$0
509	1.3.1.1.6.9	Computer Documentation & drafting	LLNL	ED&I	2	1 wk	\$2,160.00	\$0.00	\$0.00	\$2,160.00	\$2,116.80	\$1,069.20	\$5,346.

I CI	S	CD1	TEC

						LCLS_CD1_TEC	,						
ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		LLNL Physicist -Scientist		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,160.00	\$0.00	\$0.00	\$0.00
3610	1.3.1.1.6.9	Computer Interface Programming	LLNL	ED&I	2	8 wks	\$17,280.00	\$0.00	\$0.00	\$17,280.00	\$16,934.40	\$8,553.60	\$42,768.00
		LLNL Physicist -Scientist		ED&I	0	8 wks	\$0.00	\$0.00	\$0.00	\$17,280.00	\$0.00	\$0.00	\$0.00
3611	1.3.1.1.6.9	Data Analysis	LLNL	ED&I	2	6 wks	\$12,960.00	\$0.00	\$0.00	\$12,960.00	\$12,700.80	\$6,415.20	\$32,076.00
		LLNL Physicist -Scientist		ED&I	0	6 wks	\$0.00	\$0.00	\$0.00	\$12,960.00	\$0.00	\$0.00	\$0.00
3612	1.3.1.1.6.10	Pulse Length	LLNL		0	54 wks	\$125,080.00	\$0.00	\$0.00	\$125,080.00	\$122,578.40	\$61,914.60	\$309,573.00
3613	1.3.1.1.6.10	Design and Theory	LLNL	ED&I	2	0.2 wks	\$432.00	\$0.00	\$0.00	\$432.00	\$423.36	\$213.84	\$1,069.20
		LLNL Physicist -Scientist		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$432.00	\$0.00	\$0.00	\$0.00
3614	1.3.1.1.6.10	xtal growth Design and Theory	LLNL	ED&I	2	0.2 wks	\$432.00	\$0.00	\$0.00	\$432.00	\$423.36	\$213.84	\$1,069.20
		LLNL Physicist -Scientist		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$432.00	\$0.00	\$0.00	\$0.00
3615	1.3.1.1.6.10	dicing, packaging, pigtailing Design and Theory	LLNL	ED&I	2	0.2 wks	\$432.00	\$0.00	\$0.00	\$432.00	\$423.36	\$213.84	\$1,069.20
		LLNL Physicist -Scientist		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$432.00	\$0.00	\$0.00	\$0.00
3616	1.3.1.1.6.10	testing Design and Theory	LLNL	ED&I	2	0.2 wks	\$432.00	\$0.00	\$0.00	\$432.00	\$423.36	\$213.84	\$1,069.20
		LLNL Physicist -Scientist		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$432.00	\$0.00	\$0.00	\$0.00
3617	1.3.1.1.6.10	Temporal Imaging System Design and Theory	LLNL	ED&I	2	0.2 wks	\$432.00	\$0.00	\$0.00	\$432.00	\$423.36	\$213.84	\$1,069.20
		LLNL Physicist -Scientist		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$432.00	\$0.00	\$0.00	\$0.00
3618	1.3.1.1.6.10	Temporal Imaging System Modeling Physics	LLNL	ED&I	2	0.2 wks	\$432.00	\$0.00	\$0.00	\$432.00	\$423.36	\$213.84	\$1,069.20
		LLNL Physicist -Scientist		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$432.00	\$0.00	\$0.00	\$0.00
3619	1.3.1.1.6.10	Aberation compensation design Physics	LLNL	ED&I	2	0.2 wks	\$432.00	\$0.00	\$0.00	\$432.00	\$423.36	\$213.84	\$1,069.20
		LLNL Physicist -Scientist		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$432.00	\$0.00	\$0.00	\$0.00
3620	1.3.1.1.6.10	Tigger optimization Design and Theory	LLNL	ED&I	2	0.2 wks	\$432.00	\$0.00	\$0.00	\$432.00	\$423.36	\$213.84	\$1,069.20
		LLNL Physicist -Scientist		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$432.00	\$0.00	\$0.00	\$0.00
3621	1.3.1.1.6.10	Packaging design for mixing system Physics	LLNL	ED&I	2	0.2 wks	\$432.00	\$0.00	\$0.00	\$432.00	\$423.36	\$213.84	\$1,069.20
		LLNL Physicist -Scientist		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$432.00	\$0.00	\$0.00	\$0.00
3622	1.3.1.1.6.10	xtal growth EE	LLNL	ED&I	2	0.2 wks	\$496.00	\$0.00	\$0.00	\$496.00	\$486.08	\$245.52	\$1,227.60
		LLNL Electrical Engineer		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$496.00	\$0.00	\$0.00	\$0.00
3623	1.3.1.1.6.10	lilthography, processing EE	LLNL	ED&I	2	0.2 wks	\$496.00	\$0.00	\$0.00	\$496.00	\$486.08	\$245.52	\$1,227.60
		LLNL Electrical Engineer		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$496.00	\$0.00	\$0.00	\$0.00
3624	1.3.1.1.6.10	dicing, packaging, pigtailing EE	LLNL	ED&I	2	0.2 wks	\$496.00	\$0.00	\$0.00	\$496.00	\$486.08	\$245.52	\$1,227.60
		LLNL Electrical Engineer		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$496.00	\$0.00	\$0.00	\$0.00
3625	1.3.1.1.6.10	testing EE	LLNL	ED&I	2	0.2 wks	\$496.00	\$0.00	\$0.00	\$496.00	\$486.08	\$245.52	\$1,227.60
		LLNL Electrical Engineer		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$496.00	\$0.00	\$0.00	\$0.00
3626	1.3.1.1.6.10	Temporal Imaging System Design EE	LLNL	ED&I	2	0.2 wks	\$496.00	\$0.00	\$0.00	\$496.00	\$486.08	\$245.52	\$1,227.60
		LLNL Electrical Engineer		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$496.00	\$0.00	\$0.00	\$0.00
3627	1.3.1.1.6.10	Temporal Imaging System Modeling EE	LLNL	ED&I	2	0.2 wks	\$496.00	\$0.00	\$0.00	\$496.00	\$486.08	\$245.52	\$1,227.60
3021	1.5.1.1.0.10	Tomporal imaging dystem wodeling EE	LLINL	LDai	_	U.2 WKS	ψ+30.00	φυ.συ	φ0.00	ψ+συ.00	ψ+00.00	ΨΖ+0.02	Ψ1,221.00

101	0	CD4	TEC
LUL		CUI	TEC

ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		LLNL Electrical Engineer		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$496.00	\$0.00	\$0.00	\$0.0
628	1.3.1.1.6.10	Aberation compensation design EE	LLNL	ED&I	2	0.2 wks	\$496.00	\$0.00	\$0.00	\$496.00	\$486.08	\$245.52	\$1,227.
		LLNL Electrical Engineer		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$496.00	\$0.00	\$0.00	\$0.
629	1.3.1.1.6.10	Tigger optimization EE	LLNL	ED&I	2	0.2 wks	\$496.00	\$0.00	\$0.00	\$496.00	\$486.08	\$245.52	\$1,227.
		LLNL Electrical Engineer		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$496.00	\$0.00	\$0.00	\$0.
630	1.3.1.1.6.10	Packaging design for mixing system EE	LLNL	ED&I	2	0.2 wks	\$496.00	\$0.00	\$0.00	\$496.00	\$486.08	\$245.52	\$1,227.
		LLNL Electrical Engineer		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$496.00	\$0.00	\$0.00	\$0.
31	1.3.1.1.6.10	Temporal Imaging System Design	LLNL	ED&I	2	0.2 wks	\$496.00	\$0.00	\$0.00	\$496.00	\$486.08	\$245.52	\$1,227
		LLNL Electrical Engineer		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$496.00	\$0.00	\$0.00	\$0
632	1.3.1.1.6.10	ME Engineering	LLNL	ED&I	2	1 wk	\$2,520.00	\$0.00	\$0.00	\$2,520.00	\$2,469.60	\$1,247.40	\$6,237
		LLNL Mechanical Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,520.00	\$0.00	\$0.00	\$0
33	1.3.1.1.6.10	ME Drafing	LLNL	ED&I	2	1 wk	\$2,080.00	\$0.00	\$0.00	\$2,080.00	\$2,038.40	\$1,029.60	\$5,148
		LLNL Mech Drafting/Design		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,080.00	\$0.00	\$0.00	\$0
34	1.3.1.1.6.10	xtal growth	LLNL	ED&I	2	0.4 wks	\$864.00	\$0.00	\$0.00	\$864.00	\$846.72	\$427.68	\$2,138
		LLNL Physicist -Scientist		ED&I	0	0.4 wks	\$0.00	\$0.00	\$0.00	\$864.00			\$0
35	1.3.1.1.6.10	-	LLNL	ED&I	2	0.4 wks	\$864.00	\$0.00	\$0.00	\$864.00			\$2,138
	1.3.1.1.0.10	3.1 0 3.1 0	LLINE	ED&I		0.4 wks	\$0.00		\$0.00	\$864.00			
		LLNL Physicist -Scientist			0			\$0.00					\$0
36	1.3.1.1.6.10		LLNL	ED&I	2	0.4 wks	\$864.00	\$0.00	\$0.00	\$864.00			\$2,138
		LLNL Physicist -Scientist		ED&I	0	0.4 wks	\$0.00	\$0.00	\$0.00	\$864.00		\$0.00	\$0
637	1.3.1.1.6.10	Temporal Imaging System Design	LLNL	ED&I	2	4 wks	\$8,640.00	\$0.00	\$0.00	\$8,640.00	\$8,467.20	\$4,276.80	\$21,384
		LLNL Physicist -Scientist		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$8,640.00	\$0.00	\$0.00	\$0
638	1.3.1.1.6.10	Temporal Imaging System Modeling	LLNL	ED&I	2	4 wks	\$8,640.00	\$0.00	\$0.00	\$8,640.00	\$8,467.20	\$4,276.80	\$21,384
		LLNL Physicist -Scientist		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$8,640.00	\$0.00	\$0.00	\$0
639	1.3.1.1.6.10	Aberation compensation design	LLNL	ED&I	2	2 wks	\$4,320.00	\$0.00	\$0.00	\$4,320.00	\$4,233.60	\$2,138.40	\$10,692
		LLNL Physicist -Scientist		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,320.00	\$0.00	\$0.00	\$0
640	1.3.1.1.6.10	Tigger optimization	LLNL	ED&I	2	3 wks	\$6,480.00	\$0.00	\$0.00	\$6,480.00	\$6,350.40	\$3,207.60	\$16,038
		LLNL Physicist -Scientist		ED&I	0	3 wks	\$0.00	\$0.00	\$0.00	\$6,480.00	\$0.00	\$0.00	\$0
641	1.3.1.1.6.10	Packaging design for mixing system	LLNL	ED&I	2	1 wk	\$2,160.00	\$0.00	\$0.00	\$2,160.00	\$2,116.80	\$1,069.20	\$5,346
		LLNL Physicist -Scientist		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,160.00	\$0.00	\$0.00	\$0
642	1.3.1.1.6.10	xtal growth EE	LLNL	ED&I	2	2 wks	\$4,960.00	\$0.00	\$0.00	\$4,960.00	\$4,860.80	\$2,455.20	\$12,276
		LLNL Electrical Engineer		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,960.00	\$0.00	\$0.00	\$0
43	1.3.1.1.6.10	-	LLNL	ED&I	2	2 wks	\$4,960.00	\$0.00	\$0.00	\$4,960.00			\$12,276
		LLNL Electrical Engineer		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,960.00		\$0.00	\$0
644	1.3.1.1.6.10		LLNL	ED&I	2	1 wk		\$0.00	\$0.00	\$2,480.00			\$6,138
J44	1.5.1.1.0.10	LLNL Electrical Engineer	LLINL	ED&I	0	1 wk	\$2,480.00	\$0.00	\$0.00	\$2,480.00			\$0,130

I CI	S	CD1	TEC

ID		Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
3645	1.3.1.1.6.10	testing EE	LLNL	ED&I	2	1 wk	\$2,480.00	\$0.00	\$0.00	\$2,480.00	\$2,430.40	\$1,227.60	\$6,138.0
		LLNL Electrical Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,480.00	\$0.00	\$0.00	\$0.0
646	1.3.1.1.6.10	Temporal Imaging System Design EE	LLNL	ED&I	2	4 wks	\$9,920.00	\$0.00	\$0.00	\$9,920.00	\$9,721.60	\$4,910.40	\$24,552.0
		LLNL Electrical Engineer		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$9,920.00	\$0.00	\$0.00	\$0.0
647	1.3.1.1.6.10	Temporal Imaging System Modeling EE	LLNL	ED&I	2	4 wks	\$9,920.00	\$0.00	\$0.00	\$9,920.00	\$9,721.60	\$4,910.40	\$24,552.0
		LLNL Electrical Engineer		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$9,920.00	\$0.00	\$0.00	\$0.0
648	1.3.1.1.6.10	Aberation compensation design EE	LLNL	ED&I	2	3 wks	\$7,440.00	\$0.00	\$0.00	\$7,440.00	\$7,291.20	\$3,682.80	\$18,414.0
		LLNL Electrical Engineer		ED&I	0	3 wks	\$0.00	\$0.00	\$0.00	\$7,440.00	\$0.00	\$0.00	\$0.0
649	1.3.1.1.6.10	Tigger optimization EE	LLNL	ED&I	2	3 wks	\$7,440.00	\$0.00	\$0.00	\$7,440.00	\$7,291.20	\$3,682.80	\$18,414.0
		LLNL Electrical Engineer		ED&I	0	3 wks	\$0.00	\$0.00	\$0.00	\$7,440.00	\$0.00	\$0.00	\$0.0
650	1.3.1.1.6.10	_	LLNL	ED&I	2	1 wk	\$2,480.00	\$0.00	\$0.00	\$2,480.00	\$2,430.40	\$1,227.60	\$6,138.0
050	1.3.1.1.0.10	LLNL Electrical Engineer	LLINE	ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,480.00	\$0.00	\$0.00	\$0.0
		-											
551	1.3.1.1.6.10	, ,	LLNL	ED&I	2	1 wk	\$2,080.00	\$0.00	\$0.00	\$2,080.00	\$2,038.40	\$1,029.60	\$5,148.
		LLNL Mech Drafting/Design		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,080.00	\$0.00	\$0.00	\$0.
652	1.3.1.1.6.10	Packaging design for mixing system EE	LLNL	ED&I	2	1 wk	\$2,080.00	\$0.00	\$0.00	\$2,080.00	\$2,038.40	\$1,029.60	\$5,148.
		LLNL Mech Drafting/Design		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,080.00	\$0.00	\$0.00	\$0.
653	1.3.1.1.6.10	Documentation EE	LLNL	ED&I	2	2 wks	\$4,160.00	\$0.00	\$0.00	\$4,160.00	\$4,076.80	\$2,059.20	\$10,296.
		LLNL Mech Drafting/Design		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,160.00	\$0.00	\$0.00	\$0.
654	1.3.1.1.6.10	Aberation compensation design ME	LLNL	ED&I	2	1 wk	\$2,520.00	\$0.00	\$0.00	\$2,520.00	\$2,469.60	\$1,247.40	\$6,237.
		LLNL Mechanical Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,520.00	\$0.00	\$0.00	\$0.
655	1.3.1.1.6.10	Packaging design for mixing system ME	LLNL	ED&I	2	2 wks	\$5,040.00	\$0.00	\$0.00	\$5,040.00	\$4,939.20	\$2,494.80	\$12,474.
		LLNL Mechanical Engineer		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$5,040.00	\$0.00	\$0.00	\$0.
656	1.3.1.1.6.10	Documentation ME	LLNL	ED&I	2	1 wk	\$2,520.00	\$0.00	\$0.00	\$2,520.00	\$2,469.60	\$1,247.40	\$6,237.
		LLNL Mechanical Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,520.00	\$0.00	\$0.00	\$0.
657	1.3.1.1.6.10	-	LLNL	ED&I	2	4 wks	\$8,320.00	\$0.00	\$0.00	\$8,320.00	\$8,153.60	\$4,118.40	\$20,592.
007	1.3.1.1.0.10		LLINE	ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$8,320.00	\$0.00	\$0.00	\$0.
		LLNL Mech Drafting/Design		ED&I									
658	1.3.1.1.6.11	Spectrometer	LLNL		0	51.8 wks	\$119,576.00	\$0.00	\$0.00	\$119,576.00	\$117,184.48	\$59,190.12	\$295,950.
659	1.3.1.1.6.11	PDR Scintillator and light levels Physics	LLNL	ED&I	2	1 wk	\$2,160.00	\$0.00	\$0.00	\$2,160.00	\$2,116.80	\$1,069.20	\$5,346.
		LLNL Physicist -Scientist		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,160.00	\$0.00	\$0.00	\$0.
660	1.3.1.1.6.11	PDR Optical Design Physics Physics	LLNL	ED&I	2	0.6 wks	\$1,296.00	\$0.00	\$0.00	\$1,296.00	\$1,270.08	\$641.52	\$3,207
\neg		LLNL Physicist -Scientist		ED&I	0	0.6 wks	\$0.00	\$0.00	\$0.00	\$1,296.00	\$0.00	\$0.00	\$0.
661	1.3.1.1.6.11	PDR Motion requirements Physics	LLNL	ED&I	2	0.4 wks	\$864.00	\$0.00	\$0.00	\$864.00	\$846.72	\$427.68	\$2,138.
-		LLNL Physicist -Scientist		ED&I	0	0.4 wks	\$0.00	\$0.00	\$0.00	\$864.00	\$0.00	\$0.00	\$0.
662	1.3.1.1.6.11	PDR Electrical Engineering	LLNL		2	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
663	1.3.1.1.6.11	PDR Linear array EE	LLNL	ED&I	2	1 wk	\$2,480.00	\$0.00	\$0.00	\$2,480.00	\$2,430.40	\$1,227.60	\$6,138.

C	CD1	TEC

3665 1 3666 1 3667 1 3668 1 3669 1 3671 1 3672 1	1.3.1.1.6.11 1.3.1.1.6.11 1.3.1.1.6.11 1.3.1.1.6.11 1.3.1.1.6.11	PDR Optical Specification EE LLNL Electrical Engineer PDR Readout / Data Acquisition EE LLNL Electrical Engineer PDR Motors EE LLNL Electrical Engineer PDR Drafting EE LLNL Mech Drafting/Design PDR Camera Housing ME LLNL Mechanical Engineer PDR Crystal and Grating mount ME LLNL Mechanical Engineer	LENL LUNL LUNL LUNL LUNL LUNL LUNL	ED&I ED&I		0.2 wks 0.2 wks 0.2 wks 0.2 wks 0.4 wks 0.2 wks 0.4 wks 0.4 wks 0.2 wks 0.4 wks 0.2 wks 0.4 wks 0.4 wks 0.4 wks 0.4 wks 0.4 wks 0.4 wks 0.5 wks	\$0.00 \$496.00 \$496.00 \$496.00 \$992.00 \$0.00 \$496.00 \$2,080.00 \$1,008.00 \$504.00	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$2,480.00 \$496.00 \$496.00 \$496.00 \$496.00 \$992.00 \$992.00 \$496.00 \$2,080.00 \$1,008.00 \$504.00	\$486.08 \$0.00 \$486.08 \$0.00 \$972.16 \$0.00 \$486.08 \$0.00 \$2,038.40 \$0.00 \$987.84	\$245.52 \$0.00 \$245.52 \$0.00 \$491.04 \$0.00 \$245.52 \$0.00 \$1,029.60 \$0.00 \$498.96 \$0.00	\$0.6 \$1,227.6 \$0.0 \$1,227.6 \$0.0 \$2,455.2 \$0.0 \$1,227.6 \$0.0 \$2,494.8
6665 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1.3.1.1.6.11 1.3.1.1.6.11 1.3.1.1.6.11 1.3.1.1.6.11 1.3.1.1.6.11	PDR Optical Specification EE LLNL Electrical Engineer PDR Readout / Data Acquisition EE LLNL Electrical Engineer PDR Motors EE LLNL Electrical Engineer PDR Drafting EE LLNL Mech Drafting/Design PDR Camera Housing ME LLNL Mechanical Engineer PDR Crystal and Grating mount ME LLNL Mechanical Engineer PDR ME Drafting	LUNL	ED&I		0.2 wks 0.2 wks 0.2 wks 0.4 wks 0.4 wks 0.2 wks 1 wk 1 wk 0.4 wks 0.4 wks 0.2 wks	\$0.00 \$496.00 \$992.00 \$0.00 \$496.00 \$2,080.00 \$1,008.00 \$504.00	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$496.00 \$496.00 \$496.00 \$992.00 \$496.00 \$496.00 \$2,080.00 \$1,008.00	\$0.00 \$486.08 \$0.00 \$972.16 \$0.00 \$486.08 \$0.00 \$2,038.40 \$0.00 \$987.84	\$0.00 \$245.52 \$0.00 \$491.04 \$0.00 \$245.52 \$0.00 \$1,029.60 \$0.00 \$498.96	\$0.0 \$1,227.0 \$0.0 \$2,455.2 \$0.0 \$1,227.0 \$0.0 \$5,148.0 \$0.0 \$2,494.0
6666 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1.3.1.1.6.11 1.3.1.1.6.11 1.3.1.1.6.11 1.3.1.1.6.11	PDR Optical Specification EE LLNL Electrical Engineer PDR Readout / Data Acquisition EE LLNL Electrical Engineer PDR Motors EE LLNL Electrical Engineer PDR Drafting EE LLNL Mech Drafting/Design PDR Camera Housing ME LLNL Mechanical Engineer PDR Crystal and Grating mount ME LLNL Mechanical Engineer PDR ME Drafting	LLNL	ED&I		0.2 wks 0.2 wks 0.4 wks 0.2 wks 0.2 wks 0.2 wks 1 wk 1 wk 0.4 wks 0.4 wks 0.2 wks	\$496.00 \$0.00 \$992.00 \$0.00 \$496.00 \$2,080.00 \$1,008.00 \$504.00	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$496.00 \$496.00 \$992.00 \$992.00 \$496.00 \$2,080.00 \$1,008.00	\$486.08 \$0.00 \$972.16 \$0.00 \$486.08 \$0.00 \$2,038.40 \$0.00 \$987.84	\$245.52 \$0.00 \$491.04 \$0.00 \$245.52 \$0.00 \$1,029.60 \$0.00 \$498.96 \$0.00	\$1,227.6 \$0.6 \$2,455.2 \$0.6 \$1,227.6 \$0.6 \$5,148.6 \$0.6 \$2,494.8
6666 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1.3.1.1.6.11 1.3.1.1.6.11 1.3.1.1.6.11 1.3.1.1.6.11	PDR Readout / Data Acquisition EE LLNL Electrical Engineer PDR Motors EE LLNL Electrical Engineer PDR Drafting EE LLNL Mech Drafting/Design PDR Camera Housing ME LLNL Mechanical Engineer PDR Crystal and Grating mount ME LLNL Mechanical Engineer PDR ME Drafting	LLNL	ED&I		0.2 wks 0.4 wks 0.4 wks 0.2 wks 0.2 wks 1 wk 1 wk 0.4 wks 0.4 wks 0.2 wks	\$0.00 \$992.00 \$0.00 \$496.00 \$2,080.00 \$1,008.00 \$504.00	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$496.00 \$992.00 \$992.00 \$496.00 \$2,080.00 \$1,008.00	\$0.00 \$972.16 \$0.00 \$486.08 \$0.00 \$2,038.40 \$0.00 \$987.84	\$0.00 \$491.04 \$0.00 \$245.52 \$0.00 \$1,029.60 \$0.00 \$498.96	\$0.0 \$2,455 \$0.0 \$1,227 \$0.0 \$5,148 \$0.0 \$2,494
6667 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1.3.1.1.6.11	PDR Readout / Data Acquisition EE LLNL Electrical Engineer PDR Motors EE LLNL Electrical Engineer PDR Drafting EE LLNL Mech Drafting/Design PDR Camera Housing ME LLNL Mechanical Engineer PDR Crystal and Grating mount ME LLNL Mechanical Engineer PDR ME Drafting	LUNL	ED&I	2 0 2 0 2 0 2 0 0 2 0 0	0.4 wks 0.4 wks 0.2 wks 0.2 wks 1 wk 1 wk 0.4 wks 0.2 wks	\$992.00 \$0.00 \$496.00 \$0.00 \$2,080.00 \$1,008.00 \$504.00	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$992.00 \$992.00 \$496.00 \$2,080.00 \$2,080.00 \$1,008.00	\$972.16 \$0.00 \$486.08 \$0.00 \$2,038.40 \$0.00 \$987.84	\$491.04 \$0.00 \$245.52 \$0.00 \$1,029.60 \$0.00 \$498.96	\$2,455. \$0.0 \$1,227. \$0.0 \$5,148. \$0.0 \$2,494.
6667 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1.3.1.1.6.11	PDR Motors EE LLNL Electrical Engineer PDR Drafting EE LLNL Mech Drafting/Design PDR Camera Housing ME LLNL Mechanical Engineer PDR Crystal and Grating mount ME LLNL Mechanical Engineer PDR ME Drafting	LUNL	ED&I		0.4 wks 0.2 wks 0.2 wks 1 wk 1 wk 0.4 wks 0.4 wks	\$0.00 \$496.00 \$0.00 \$2,080.00 \$1,008.00 \$0.00 \$504.00	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$992.00 \$496.00 \$496.00 \$2,080.00 \$1,008.00	\$0.00 \$486.08 \$0.00 \$2,038.40 \$0.00 \$987.84	\$0.00 \$245.52 \$0.00 \$1,029.60 \$0.00 \$498.96 \$0.00	\$0. \$1,227. \$0. \$5,148. \$0. \$2,494.
6668 1 1 6669 1 1 6670 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1.3.1.1.6.11	PDR Motors EE LLNL Electrical Engineer PDR Drafting EE LLNL Mech Drafting/Design PDR Camera Housing ME LLNL Mechanical Engineer PDR Crystal and Grating mount ME LLNL Mechanical Engineer PDR ME Drafing	LUNL	ED&I ED&I ED&I ED&I ED&I ED&I ED&I ED&I ED&I		0.2 wks 0.2 wks 1 wk 1 wk 0.4 wks 0.4 wks	\$496.00 \$0.00 \$2,080.00 \$1,008.00 \$504.00	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$496.00 \$496.00 \$2,080.00 \$1,008.00	\$486.08 \$0.00 \$2,038.40 \$0.00 \$987.84 \$0.00	\$245.52 \$0.00 \$1,029.60 \$0.00 \$498.96 \$0.00	\$1,227. \$0. \$5,148. \$0. \$2,494.
5568 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1.3.1.1.6.11	PDR Drafting EE LLNL Mech Drafting/Design PDR Camera Housing ME LLNL Mechanical Engineer PDR Crystal and Grating mount ME LLNL Mechanical Engineer PDR ME Drafting	LUNL	ED&I ED&I ED&I ED&I ED&I ED&I ED&I ED&I	0 2 0 2 0 2 0 0 0	0.2 wks 1 wk 1 wk 0.4 wks 0.4 wks	\$0.00 \$2,080.00 \$0.00 \$1,008.00 \$0.00	\$0.00 \$0.00 \$0.00 \$0.00	\$0.00 \$0.00 \$0.00 \$0.00	\$496.00 \$2,080.00 \$2,080.00 \$1,008.00	\$0.00 \$2,038.40 \$0.00 \$987.84	\$0.00 \$1,029.60 \$0.00 \$498.96	\$0. \$5,148 \$0. \$2,494
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1.3.1.1.6.11 1.3.1.1.6.11 1.3.1.1.6.11	PDR Drafting EE LLNL Mech Drafting/Design PDR Camera Housing ME LLNL Mechanical Engineer PDR Crystal and Grating mount ME LLNL Mechanical Engineer PDR ME Drafting	LLNL	ED&I ED&I ED&I ED&I ED&I ED&I	2 0 0 2 0 0 0	1 wk 1 wk 0.4 wks 0.4 wks 0.2 wks	\$2,080.00 \$0.00 \$1,008.00 \$0.00	\$0.00 \$0.00 \$0.00	\$0.00 \$0.00 \$0.00	\$2,080.00 \$2,080.00 \$1,008.00	\$2,038.40 \$0.00 \$987.84 \$0.00	\$1,029.60 \$0.00 \$498.96 \$0.00	\$5,148 \$0. \$2,494 \$0.
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1.3.1.1.6.11 1.3.1.1.6.11 1.3.1.1.6.11	PDR Camera Housing ME LLNL Mechanical Engineer PDR Crystal and Grating mount ME LLNL Mechanical Engineer PDR ME Drafing	LLNL	ED&I ED&I ED&I ED&I ED&I	0 2 0	1 wk 0.4 wks 0.4 wks 0.2 wks	\$0.00 \$1,008.00 \$0.00 \$504.00	\$0.00 \$0.00 \$0.00	\$0.00 \$0.00	\$2,080.00 \$1,008.00 \$1,008.00	\$0.00 \$987.84 \$0.00	\$0.00 \$498.96 \$0.00	\$0. \$2,494 \$0.
670 1 671 1 672 1 673 1	1.3.1.1.6.11	PDR Camera Housing ME LLNL Mechanical Engineer PDR Crystal and Grating mount ME LLNL Mechanical Engineer PDR ME Drafing	LLNL	ED&I ED&I ED&I ED&I	2 0 2	0.4 wks 0.4 wks 0.2 wks	\$1,008.00 \$0.00 \$504.00	\$0.00 \$0.00	\$0.00 \$0.00	\$1,008.00 \$1,008.00	\$987.84	\$498.96	\$2,494 \$0.
670 1 671 1 672 1 673 1	1.3.1.1.6.11	LLNL Mechanical Engineer PDR Crystal and Grating mount ME LLNL Mechanical Engineer PDR ME Drafing	LLNL	ED&I ED&I	0 2	0.4 wks	\$0.00 \$504.00	\$0.00	\$0.00	\$1,008.00	\$0.00	\$0.00	\$0.
572 1	1.3.1.1.6.11	PDR Crystal and Grating mount ME LLNL Mechanical Engineer PDR ME Drafing		ED&I	2	0.2 wks	\$504.00						
571 1 672 1 573 1	1.3.1.1.6.11	LLNL Mechanical Engineer PDR ME Drafing		ED&I	0			\$0.00	\$0.00	EE04.00	2400		E4 247
572 1		LLNL Mechanical Engineer PDR ME Drafing	LLNL			0.2 wks				\$504.00	\$493.92	\$249.48	⊅1,∠4/
572 1		PDR ME Draffing	LLNL			0.2 WAS		\$0.00	\$0.00	\$504.00			\$0
572 1			LLINE	EDai		1 wk		\$0.00	\$0.00	\$2,080.00			\$5,148
573 1	1.3.1.1.6.11	LLNL Mech Draπing/Design		ED&I									\$5,140
573 1	1.3.1.1.6.11				0	1 wk	\$0.00	\$0.00	\$0.00	\$2,080.00			
574 1		,	LLNL	ED&I	2	0.4 wks	\$864.00	\$0.00	\$0.00	\$864.00			\$2,138
674 1		LLNL Physicist -Scientist		ED&I	0	0.4 wks	\$0.00	\$0.00	\$0.00	\$864.00			\$0
+	1.3.1.1.6.11	FDR Scintillating Crystal EE	LLNL	ED&I	2	0.2 wks	\$496.00	\$0.00	\$0.00	\$496.00	\$486.08	\$245.52	\$1,227
+		LLNL Electrical Engineer		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$496.00	\$0.00	\$0.00	\$0
675 1	1.3.1.1.6.11	FDR Linear Array EE	LLNL	ED&I	2	4 wks	\$9,920.00	\$0.00	\$0.00	\$9,920.00	\$9,721.60	\$4,910.40	\$24,552
675 1		LLNL Electrical Engineer		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$9,920.00	\$0.00	\$0.00	\$0
	1.3.1.1.6.11	FDR TE Cooler EE	LLNL	ED&I	2	0.2 wks	\$496.00	\$0.00	\$0.00	\$496.00	\$486.08	\$245.52	\$1,227
		LLNL Electrical Engineer		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$496.00	\$0.00	\$0.00	\$0
676 1	1.3.1.1.6.11	FDR Analog board EE	LLNL	ED&I	2	4 wks	\$9,920.00	\$0.00	\$0.00	\$9,920.00	\$9,721.60	\$4,910.40	\$24,552
		LLNL Electrical Engineer		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$9,920.00	\$0.00	\$0.00	\$0
677 1	1.3.1.1.6.11	FDR Camera Digital board EE	LLNL	ED&I	2	2 wks	\$4,960.00	\$0.00	\$0.00	\$4,960.00	\$4,860.80	\$2,455.20	\$12,276
		LLNL Electrical Engineer		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,960.00	\$0.00	\$0.00	\$0
678 1	1.3.1.1.6.11	FDR Computer Interface board EE	LLNL	ED&I	2	2 wks	\$4,960.00	\$0.00	\$0.00	\$4,960.00	\$4,860.80	\$2,455.20	\$12,276
		LLNL Electrical Engineer		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,960.00	\$0.00	\$0.00	\$0
579 1	1.3.1.1.6.11	-	LLNL	ED&I	2	1 wk		\$0.00	\$0.00	\$2,080.00			\$5,148
		LLNL Mech Drafting/Design		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,080.00			\$0
680 1	1.3.1.1.6.11		LLNL	ED&I	2	1 wk		\$0.00	\$0.00	\$2,080.00			\$5,148
1	1.0.1.1.0.11	FUR Analog boards Dratting EE LLNL Mech Dratting/Design	LLINL	ED&I	0	1 wk	\$2,080.00	\$0.00	\$0.00	\$2,080.00			\$5,148

C	CD1	TEC

ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
3681	1.3.1.1.6.11	FDR Camera Digital board Drafting EE	LLNL	ED&I	2	1 wk	\$2,080.00	\$0.00	\$0.00	\$2,080.00	\$2,038.40	\$1,029.60	\$5,148.0
		LLNL Mech Drafting/Design		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,080.00	\$0.00	\$0.00	\$0.0
682	1.3.1.1.6.11	FDR Crystal mount ME	LLNL	ED&I	2	1 wk	\$2,520.00	\$0.00	\$0.00	\$2,520.00	\$2,469.60	\$1,247.40	\$6,237.0
		LLNL Mechanical Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,520.00	\$0.00	\$0.00	\$0.0
683	1.3.1.1.6.11	FDR Grating mount ME	LLNL	ED&I	2	1 wk	\$2,520.00	\$0.00	\$0.00	\$2,520.00	\$2,469.60	\$1,247.40	\$6,237.
		LLNL Mechanical Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,520.00	\$0.00	\$0.00	\$0.
584	1.3.1.1.6.11	FDR Crystal ME	LLNL	ED&I	2	1 wk	\$2,520.00	\$0.00	\$0.00	\$2,520.00	\$2,469.60	\$1,247.40	\$6,237
		LLNL Mechanical Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,520.00	\$0.00	\$0.00	\$0
85	1.3.1.1.6.11	FDR Grating ME	LLNL	ED&I	2	1 wk	\$2,520.00	\$0.00	\$0.00	\$2,520.00	\$2,469.60	\$1,247.40	\$6,237
		LLNL Mechanical Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,520.00	\$0.00	\$0.00	\$0
686	1.3.1.1.6.11	FDR Alignment mirror ME	LLNL	ED&I	2	1 wk	\$2,520.00	\$0.00	\$0.00	\$2,520.00	\$2,469.60	\$1,247.40	\$6,237
		LLNL Mechanical Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,520.00	\$0.00	\$0.00	\$0
87	1.3.1.1.6.11	FDR TE Cooler ME	LLNL	ED&I	2	1 wk	\$2,520.00	\$0.00	\$0.00	\$2,520.00	\$2,469.60	\$1,247.40	\$6,237
		LLNL Mechanical Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,520.00	\$0.00	\$0.00	\$0
88	1.3.1.1.6.11	FDR Alignment mirror mount ME	LLNL	ED&I	2	0.2 wks	\$504.00	\$0.00	\$0.00	\$504.00	\$493.92	\$249.48	\$1,247
		LLNL Mechanical Engineer		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$504.00	\$0.00	\$0.00	\$0
89	1.3.1.1.6.11	FDR Camera vaccum housing ME	LLNL	ED&I	2	3 wks	\$7,560.00	\$0.00	\$0.00	\$7,560.00	\$7,408.80	\$3,742.20	\$18,711
		LLNL Mechanical Engineer		ED&I	0	3 wks	\$0.00	\$0.00	\$0.00	\$7,560.00	\$0.00	\$0.00	\$0
90	1.3.1.1.6.11	FDR Cold finger ME	LLNL	ED&I	2	1 wk	\$2,520.00	\$0.00	\$0.00	\$2,520.00	\$2,469.60	\$1,247.40	\$6,237
		LLNL Mechanical Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,520.00	\$0.00	\$0.00	\$0
91	1.3.1.1.6.11	FDR Chiller ME	LLNL	ED&I	2	0.2 wks	\$504.00	\$0.00	\$0.00	\$504.00	\$493.92	\$249.48	\$1,247
		LLNL Mechanical Engineer		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$504.00	\$0.00	\$0.00	\$0
692	1.3.1.1.6.11	FDR System ME Drafing	LLNL	ED&I	2	1 wk	\$2,080.00	\$0.00	\$0.00	\$2,080.00	\$2,038.40	\$1,029.60	\$5,148
		LLNL Mech Drafting/Design		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,080.00	\$0.00	\$0.00	\$0
93	1.3.1.1.6.11	FDR Crystal mount ME Drafing	LLNL	ED&I	2	1 wk	\$2,080.00	\$0.00	\$0.00	\$2,080.00	\$2,038.40	\$1,029.60	\$5,148
		LLNL Mech Drafting/Design		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,080.00	\$0.00	\$0.00	\$0
94	1.3.1.1.6.11	FDR Grating mount ME Drafing	LLNL	ED&I	2	1 wk	\$2,080.00	\$0.00	\$0.00	\$2,080.00	\$2,038.40	\$1,029.60	\$5,148
		LLNL Mech Drafting/Design		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,080.00	\$0.00	\$0.00	\$0
95	1.3.1.1.6.11	FDR Camera vaccum housing ME Drafing	LLNL	ED&I	2	2 wks	\$4,160.00	\$0.00	\$0.00	\$4,160.00	\$4,076.80	\$2,059.20	\$10,296
		LLNL Mech Drafting/Design		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,160.00	\$0.00	\$0.00	\$0
96	1.3.1.1.6.11	FDR Cold finger ME Drafing	LLNL	ED&I	2	1 wk	\$2,080.00	\$0.00	\$0.00	\$2,080.00	\$2,038.40	\$1,029.60	\$5,14
		LLNL Mech Drafting/Design		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,080.00	\$0.00	\$0.00	\$0
97	1.3.1.1.6.11	Computer Documentation & drafting	LLNL	ED&I	2	1 wk	\$2,160.00	\$0.00	\$0.00	\$2,160.00	\$2,116.80	\$1,069.20	\$5,346
		LLNL Physicist -Scientist		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,160.00	\$0.00	\$0.00	\$0
698	1.3.1.1.6.11	Computer Interface Programming	LLNL	ED&I	2	6 wks	\$12,960.00	\$0.00	\$0.00	\$12,960.00	\$12,700.80	\$6,415.20	\$32,076

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ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		LLNL Physicist -Scientist		ED&I	0	6 wks	\$0.00	\$0.00	\$0.00	\$12,960.00	\$0.00	\$0.00	\$0.0
699	1.3.1.1.6.11	Image Analysis	LLNL	ED&I	2	6 wks	\$12,960.00	\$0.00	\$0.00	\$12,960.00	\$12,700.80	\$6,415.20	\$32,076.
		LLNL Physicist -Scientist		ED&I	0	6 wks	\$0.00	\$0.00	\$0.00	\$12,960.00	\$0.00	\$0.00	\$0.
700	1.3.1.1.6.12	Spatial Coherence	LLNL		0	14 wks	\$31,616.00	\$0.00	\$0.00	\$31,616.00	\$30,983.68	\$15,649.92	\$78,249.
701	1.3.1.1.6.12	PDR Low Energy Slits Physics	LLNL	ED&I	2	0.4 wks	\$864.00	\$0.00	\$0.00	\$864.00	\$846.72	\$427.68	\$2,138
		LLNL Physicist -Scientist		ED&I	0	0.4 wks	\$0.00	\$0.00	\$0.00	\$864.00	\$0.00	\$0.00	\$0.
702	1.3.1.1.6.12	PDR Hight Energy Slits Physics	LLNL	ED&I	2	0.4 wks	\$864.00	\$0.00	\$0.00	\$864.00	\$846.72	\$427.68	\$2,138
		LLNL Physicist -Scientist		ED&I	0	0.4 wks	\$0.00	\$0.00	\$0.00	\$864.00	\$0.00	\$0.00	\$0
703	1.3.1.1.6.12	PDR Coherence Theory Physics	LLNL	ED&I	2	0.4 wks	\$864.00	\$0.00	\$0.00	\$864.00	\$846.72	\$427.68	\$2,138
		LLNL Physicist -Scientist		ED&I	0	0.4 wks	\$0.00	\$0.00	\$0.00	\$864.00	\$0.00	\$0.00	\$0
704	1.3.1.1.6.12	PDR Low Energy Etching Process EE	LLNL	ED&I	2	0.4 wks	\$992.00	\$0.00	\$0.00	\$992.00	\$972.16	\$491.04	\$2,455
		LLNL Electrical Engineer		ED&I	0	0.4 wks	\$0.00	\$0.00	\$0.00	\$992.00	\$0.00	\$0.00	\$0
705	1.3.1.1.6.12	PDR Sputter / Sliced Process ME	LLNL	ED&I	2	0.4 wks	\$1,008.00	\$0.00	\$0.00	\$1,008.00	\$987.84	\$498.96	\$2,494
		LLNL Mechanical Engineer		ED&I	0	0.4 wks	\$0.00	\$0.00	\$0.00	\$1,008.00	\$0.00	\$0.00	\$0
'06	1.3.1.1.6.12	PDR Mounting ME	LLNL	ED&I	2	0.4 wks	\$1,008.00	\$0.00	\$0.00	\$1,008.00	\$987.84	\$498.96	\$2,494
		LLNL Mechanical Engineer		ED&I	0	0.4 wks	\$0.00	\$0.00	\$0.00	\$1,008.00	\$0.00	\$0.00	\$0
07	1.3.1.1.6.12	-	LLNL	ED&I	2	0.4 wks	\$832.00	\$0.00	\$0.00	\$832.00	\$815.36	\$411.84	\$2,059
		LLNL Mech Drafting/Design		ED&I	0	0.4 wks	\$0.00	\$0.00	\$0.00	\$832.00	\$0.00	\$0.00	\$6
708	1.3.1.1.6.12		LLNL	ED&I	2	1 wk		\$0.00	\$0.00	\$2,160.00	\$2,116.80	\$1,069.20	\$5,346
- 00	1.3.1.1.0.12	,	LLINE									\$0.00	
		LLNL Physicist -Scientist		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,160.00	\$0.00		\$6
709	1.3.1.1.6.12		LLNL	ED&I	2	1 wk		\$0.00	\$0.00	\$2,480.00	\$2,430.40	\$1,227.60	\$6,138
		LLNL Electrical Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,480.00	\$0.00	\$0.00	\$0
710	1.3.1.1.6.12	<i></i> •	LLNL	ED&I	2	2 wks	\$4,160.00	\$0.00	\$0.00	\$4,160.00	\$4,076.80	\$2,059.20	\$10,296
		LLNL Mech Drafting/Design		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,160.00	\$0.00	\$0.00	\$0
711	1.3.1.1.6.12	FDR Mount for Low Energy ME	LLNL	ED&I	2	1 wk	\$2,520.00	\$0.00	\$0.00	\$2,520.00	\$2,469.60	\$1,247.40	\$6,237
		LLNL Mechanical Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,520.00	\$0.00	\$0.00	\$0
712	1.3.1.1.6.12	FDR Mount for High Energy ME	LLNL	ED&I	2	1 wk	\$2,520.00	\$0.00	\$0.00	\$2,520.00	\$2,469.60	\$1,247.40	\$6,237
		LLNL Mechanical Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,520.00	\$0.00	\$0.00	\$0
713	1.3.1.1.6.12	FDR High Energy Substrate ME	LLNL	ED&I	2	0.4 wks	\$1,008.00	\$0.00	\$0.00	\$1,008.00	\$987.84	\$498.96	\$2,494
		LLNL Mechanical Engineer		ED&I	0	0.4 wks	\$0.00	\$0.00	\$0.00	\$1,008.00	\$0.00	\$0.00	\$0
14	1.3.1.1.6.12	FDR Sputtering ME	LLNL	ED&I	2	0.4 wks	\$1,008.00	\$0.00	\$0.00	\$1,008.00	\$987.84	\$498.96	\$2,49
		LLNL Mechanical Engineer		ED&I	0	0.4 wks	\$0.00	\$0.00	\$0.00	\$1,008.00	\$0.00	\$0.00	\$0
715	1.3.1.1.6.12	FDR Vacuum brase ME	LLNL	ED&I	2	0.4 wks	\$1,008.00	\$0.00	\$0.00	\$1,008.00	\$987.84	\$498.96	\$2,494
		LLNL Mechanical Engineer		ED&I	0	0.4 wks	\$0.00	\$0.00	\$0.00	\$1,008.00	\$0.00	\$0.00	\$0
716	1.3.1.1.6.12	FDR Mount for Low Energy ME Drafting	LLNL	ED&I	2	1 wk	\$2,080.00	\$0.00	\$0.00	\$2.080.00	\$2,038.40	\$1,029.60	\$5,148

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ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		LLNL Mech Drafting/Design		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,080.00	\$0.00	\$0.00	\$0.
717	1.3.1.1.6.12	FDR Mount for High Energy ME Drafting	LLNL	ED&I	2	1 wk	\$2,080.00	\$0.00	\$0.00	\$2,080.00	\$2,038.40	\$1,029.60	\$5,148.
		LLNL Mech Drafting/Design		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,080.00	\$0.00	\$0.00	\$0.
718	1.3.1.1.6.12	FDR Slit Drawings ME Drafting	LLNL	ED&I	2	1 wk	\$2,080.00	\$0.00	\$0.00	\$2,080.00	\$2,038.40	\$1,029.60	\$5,148
		LLNL Mech Drafting/Design		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,080.00	\$0.00	\$0.00	\$0
719	1.3.1.1.6.12	FDR Assembly Drawing ME Drafting	LLNL	ED&I	2	1 wk	\$2,080.00	\$0.00	\$0.00	\$2,080.00	\$2,038.40	\$1,029.60	\$5,148
		LLNL Mech Drafting/Design		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,080.00	\$0.00	\$0.00	\$0
720	1.3.1.1.6.13	Spatial Shape and Centroid	LLNL		0	1.2 wks	\$2,592.00	\$0.00	\$0.00	\$2,592.00	\$2,540.16	\$1,283.04	\$6,415
721	1.3.1.1.6.13	PDR Design and Theory	LLNL	ED&I	2	0.2 wks	\$432.00	\$0.00	\$0.00	\$432.00	\$423.36	\$213.84	\$1,069
		LLNL Physicist -Scientist		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$432.00	\$0.00	\$0.00	\$0
722	1.3.1.1.6.13	FDRDesign and Theory	LLNL	ED&I	2	1 wk	\$2,160.00	\$0.00	\$0.00	\$2,160.00	\$2,116.80	\$1,069.20	\$5,346
		LLNL Physicist -Scientist		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,160.00	\$0.00	\$0.00	\$0
723	1.3.1.1.6.14	Divergence	LLNL		0	1.2 wks	\$2,592.00	\$0.00	\$0.00	\$2,592.00	\$2,540.16	\$1,283.04	\$6,415
724	1.3.1.1.6.14	PDR Design and Theory	LLNL	ED&I	2	0.2 wks	\$432.00	\$0.00	\$0.00	\$432.00	\$423.36	\$213.84	\$1,069
		LLNL Physicist -Scientist		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$432.00	\$0.00	\$0.00	\$0
25	1.3.1.1.6.14	FDR Design and Theory	LLNL	ED&I	2	1 wk	\$2,160.00	\$0.00	\$0.00	\$2,160.00	\$2,116.80	\$1,069.20	\$5,34
		LLNL Physicist -Scientist		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,160.00	\$0.00	\$0.00	\$0
726	1.3.1.2	Mechanical and Vacuum			0	182.55 wks	\$0.00	\$1,453,001.00	\$401,150.00	\$1,854,151.00	\$667,744.19	\$465,272.25	\$2,987,167
727	1.3.1.2.1	Front End Enclosure(FEE)			0	13.46 wks	\$0.00	\$106,500.00	\$29,623.20	\$136,123.20	\$49,159.24	\$32,454.29	\$217,736
728	1.3.1.2.1.1	, ,				10.40 WKS	ψ0.00		Ψ23,020.20	ψ100,120.20	Q43,103.24		
	1.3.1.2.1.1				-	4.0	60.00	67.000.00	60 000 00	60 000 00	60.057.04	60 570 04	
		Isolation valve	LLNL		0	1.2 wks	\$0.00	\$7,000.00	\$2,688.00	\$9,688.00	\$3,957.24	\$2,579.01	
	1.3.1.2.1.1	Hardware	LLNL	ED&I	2	0.4 wks	\$0.00	\$0.00	\$1,008.00	\$1,008.00	\$987.84	\$498.96	\$16,224 \$2,494
729		Hardware LLNL PCD:Coordinator Associate	LLNL	ED&I		0.4 wks	\$0.00	\$0.00	\$1,008.00 \$0.00	\$1,008.00 \$1,008.00	\$987.84	\$498.96	\$2,494 \$6
	1.3.1.2.1.1	Hardware LLNL PCD:Coordinator Associate			2	0.4 wks	\$0.00	\$0.00	\$1,008.00	\$1,008.00	\$987.84	\$498.96	\$2,494
729		Hardware LLNL PCD:Coordinator Associate	LLNL	ED&I	2	0.4 wks	\$0.00	\$0.00	\$1,008.00 \$0.00	\$1,008.00 \$1,008.00	\$987.84	\$498.96	\$2,494 \$6
730		Hardware LLNL PCD:Coordinator Associate Hardware LLNL M&S Total	LLNL	ED&I M&S	0	0.4 wks 0.4 wks 0 wks	\$0.00 \$0.00 \$0.00	\$0.00 \$0.00 \$7,000.00	\$1,008.00 \$0.00 \$0.00	\$1,008.00 \$1,008.00 \$7,000.00	\$987.84 \$0.00 \$1,323.00	\$498.96 \$0.00 \$1,248.45	\$2,494 \$6 \$9,577
730	1.3.1.2.1.1	Hardware LLNL PCD:Coordinator Associate Hardware LLNL M&S Total	LLNL	ED&I M&S M&S	0 1 0	0.4 wks 0.4 wks 0 wks 7,000	\$0.00 \$0.00 \$0.00	\$0.00 \$0.00 \$7,000.00 \$0.00	\$1,008.00 \$0.00 \$0.00	\$1,008.00 \$1,008.00 \$7,000.00 \$7,000.00	\$987.84 \$0.00 \$1,323.00 \$0.00	\$498.96 \$0.00 \$1,248.45 \$0.00	\$2,496 \$6 \$9,57
730	1.3.1.2.1.1	Hardware LLNL PCD:Coordinator Associate Hardware LLNL M&S Total Install & test LLNL Mech. Fab: Assembly Tech	LLNL	ED&I M&S M&S B&H	2 0 1 0 2	0.4 wks 0.4 wks 0 wks 7,000 0.4 wks	\$0.00 \$0.00 \$0.00 \$0.00	\$0.00 \$0.00 \$7,000.00 \$0.00	\$1,008.00 \$0.00 \$0.00 \$0.00 \$832.00	\$1,008.00 \$1,008.00 \$7,000.00 \$7,000.00 \$832.00	\$987.84 \$0.00 \$1,323.00 \$0.00 \$815.36	\$498.96 \$0.00 \$1,248.45 \$0.00 \$411.84	\$2,49e \$0 \$9,57 \$0 \$2,059
730	1.3.1.2.1.1	Hardware LLNL PCD:Coordinator Associate Hardware LLNL M&S Total Install & test LLNL Mech. Fab: Assembly Tech	LLNL	ED&I M&S M&S B&H B&H	2 0 1 1 0 2 0 0	0.4 wks 0.4 wks 0 wks 7,000 0.4 wks	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$0.00 \$0.00 \$7,000.00 \$0.00 \$0.00	\$1,008.00 \$0.00 \$0.00 \$0.00 \$832.00	\$1,008.00 \$1,008.00 \$7,000.00 \$7,000.00 \$832.00	\$987.84 \$0.00 \$1,323.00 \$0.00 \$815.36	\$498.96 \$0.00 \$1,248.45 \$0.00 \$411.84 \$0.00	\$2,49 \$6 \$9,57 \$6 \$2,059
730	1.3.1.2.1.1	Hardware LLNL PCD:Coordinator Associate Hardware LLNL M&S Total Install & test LLNL Mech. Fab: Assembly Tech Elect inst LLNL Controls: Technician	LLNL	ED&I M&S M&S B&H B&H B&H	2 0 1 1 0 2 0 2	0.4 wks 0.4 wks 0 wks 7,000 0.4 wks 0.4 wks	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$0.00 \$0.00 \$7,000.00 \$0.00 \$0.00	\$1,008.00 \$0.00 \$0.00 \$0.00 \$832.00 \$0.00 \$848.00	\$1,008.00 \$1,008.00 \$7,000.00 \$7,000.00 \$832.00 \$848.00	\$987.84 \$0.00 \$1,323.00 \$0.00 \$815.36 \$0.00 \$831.04	\$498.96 \$0.00 \$1,248.45 \$0.00 \$411.84 \$0.00 \$419.76	\$2,49 \$6 \$9,57 \$6 \$2,05 \$2
730 731 732	1.3.1.2.1.1	Hardware LLNL PCD:Coordinator Associate Hardware LLNL M&S Total Install & test LLNL Mech. Fab: Assembly Tech Elect inst LLNL Controls: Technician Isolation valve-Be	LLNL	ED&I M&S M&S B&H B&H B&H	2 0 1 0 2 0 0 2 0 0	0.4 wks 0.4 wks 0 wks 7,000 0.4 wks 0.4 wks 0.4 wks	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$0.00 \$0.00 \$7,000.00 \$0.00 \$0.00 \$0.00	\$1,008.00 \$0.00 \$0.00 \$0.00 \$832.00 \$0.00 \$848.00	\$1,008.00 \$1,008.00 \$7,000.00 \$7,000.00 \$832.00 \$848.00	\$987.84 \$0.00 \$1,323.00 \$0.00 \$815.36 \$0.00 \$831.04	\$498.96 \$0.00 \$1,248.45 \$0.00 \$411.84 \$0.00 \$419.76	\$2,49 \$6 \$9,57 \$6 \$2,05 \$2,09 \$6 \$21,718
730 731 732	1.3.1.2.1.1 1.3.1.2.1.1 1.3.1.2.1.1	Hardware LLNL PCD:Coordinator Associate Hardware LLNL M&S Total Install & test LLNL Mech. Fab: Assembly Tech Elect inst LLNL Controls: Technician Isolation valve-Be	LLNL	ED&I M&S M&S B&H B&H B&H B&H	2 0 1 0 2 0 0 2 0 0	0.4 wks 0.4 wks 0 wks 7,000 0.4 wks 0.4 wks 0.4 wks 1.6 wks	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$0.00 \$0.00 \$7,000.00 \$0.00 \$0.00 \$0.00 \$0.00	\$1,008.00 \$0.00 \$0.00 \$0.00 \$832.00 \$0.00 \$848.00 \$0.00	\$1,008.00 \$1,008.00 \$7,000.00 \$7,000.00 \$832.00 \$848.00 \$13,520.00	\$987.84 \$0.00 \$1,323.00 \$0.00 \$815.36 \$0.00 \$831.04 \$0.00 \$5,339.60	\$498.96 \$0.00 \$1,248.45 \$0.00 \$411.84 \$0.00 \$419.76 \$0.00 \$2,859.04	\$2,49 \$6 \$9,57 \$6 \$2,05 \$2,09 \$6 \$21,718
729 730 731 732 733	1.3.1.2.1.1 1.3.1.2.1.1 1.3.1.2.1.1	Hardware LLNL PCD:Coordinator Associate Hardware LLNL M&S Total Install & test LLNL Mech. Fab: Assembly Tech Elect inst LLNL Controls: Technician Isolation valve-Be Hardware LLNL M&S Total	LLNL	ED&I M&S M&S B&H B&H B&H M&S	2 0 1 1 0 2 0 0 0 1 1 1	0.4 wks 0.4 wks 0 wks 7,000 0.4 wks 0.4 wks 0.4 wks 1.6 wks	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$0.00 \$0.00 \$7,000.00 \$0.00 \$0.00 \$0.00 \$0.00 \$10,000.00	\$1,008.00 \$0.00 \$0.00 \$0.00 \$832.00 \$0.00 \$3,520.00	\$1,008.00 \$1,008.00 \$7,000.00 \$7,000.00 \$832.00 \$848.00 \$13,520.00	\$987.84 \$0.00 \$1,323.00 \$0.00 \$815.36 \$0.00 \$831.04 \$0.00 \$5,339.60	\$498.96 \$0.00 \$1,248.45 \$0.00 \$411.84 \$0.00 \$419.76 \$0.00 \$2,859.04 \$1,783.50	\$2,49 \$6 \$9,57 \$2,05 \$2,09 \$2,09 \$13,67
729	1.3.1.2.1.1 1.3.1.2.1.1 1.3.1.2.1.1 1.3.1.2.1.2	Hardware LLNL PCD:Coordinator Associate Hardware LLNL M&S Total Install & test LLNL Mech. Fab: Assembly Tech Elect inst LLNL Controls: Technician Isolation valve-Be Hardware LLNL M&S Total	LLNL LLNL LLNL LLNL LLNL LLNL	ED&I M&S M&S B&H B&H B&H B&H M&S	2 0 1 1 0 2 0 0 0 1 1 0 0 0 0 0 0 0 0 0	0.4 wks 0.4 wks 0 wks 7,000 0.4 wks 0.4 wks 0.4 wks 1.6 wks 10,000	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$0.00 \$0.00 \$7,000.00 \$0.00 \$0.00 \$0.00 \$0.00 \$10,000.00	\$1,008.00 \$0.00 \$0.00 \$0.00 \$832.00 \$0.00 \$3,520.00 \$0.00	\$1,008.00 \$1,008.00 \$7,000.00 \$7,000.00 \$832.00 \$848.00 \$13,520.00 \$10,000.00	\$987.84 \$0.00 \$1,323.00 \$0.00 \$815.36 \$0.00 \$831.04 \$0.00 \$5,339.60 \$1,890.00	\$498.96 \$0.00 \$1,248.45 \$0.00 \$411.84 \$0.00 \$419.76 \$0.00 \$2,859.04 \$1,783.50	\$2,49 \$6 \$9,57 \$6 \$2,05 \$2,09 \$6 \$21,718 \$13,67 \$1,99
730 731 732 733	1.3.1.2.1.1 1.3.1.2.1.1 1.3.1.2.1.1 1.3.1.2.1.2	Hardware LLNL PCD:Coordinator Associate Hardware LLNL M&S Total Install & test LLNL Mech. Fab: Assembly Tech Elect inst LLNL Controls: Technician Isolation valve-Be Hardware LLNL M&S Total Hardware LLNL M&S Total	LLNL LLNL LLNL LLNL LLNL LLNL	ED&I M&S M&S B&H B&H B&H B&H B&H B&H	2 0 1 0 2 0 2 0 0	0.4 wks 0.4 wks 7,000 0.4 wks 0.4 wks 0.4 wks 1.6 wks 0.4 wks 0.4 wks	\$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00	\$0.00 \$0.00 \$7,000.00 \$0.00 \$0.00 \$0.00 \$10,000.00 \$0.00 \$0.00	\$1,008.00 \$0.00 \$0.00 \$832.00 \$0.00 \$848.00 \$0.00 \$3,520.00 \$0.00 \$1,008.00	\$1,008.00 \$1,008.00 \$7,000.00 \$7,000.00 \$832.00 \$848.00 \$13,520.00 \$10,000.00	\$987.84 \$0.00 \$1,323.00 \$0.00 \$815.36 \$0.00 \$831.04 \$0.00 \$5,339.60 \$1,890.00 \$987.84	\$498.96 \$0.00 \$1,248.45 \$0.00 \$411.84 \$0.00 \$419.76 \$0.00 \$2,859.04 \$1,783.50 \$0.00 \$0.00	\$2,49 \$6 \$9,57 \$6 \$2,056 \$2,096

I CI	S	CD1	TEC

ID		Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
737	1.3.1.2.1.2	Elect inst	LLNL	B&H	1	0.4 wks	\$0.00	\$0.00	\$848.00	\$848.00	\$831.04	\$251.86	\$1,930.
		LLNL Controls: Technician		B&H	0	0.4 wks	\$0.00	\$0.00	\$0.00	\$848.00	\$0.00	\$0.00	\$0.
738	1.3.1.2.1.3	Vacuum piping	LLNL		0	0.75 wks	\$0.00	\$2,000.00	\$1,626.00	\$3,626.00	\$1,971.48	\$974.46	\$6,571.
'39	1.3.1.2.1.3	Hardware	LLNL	M&S	1	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$378.00	\$356.70	\$2,734
\neg		LLNL M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0
40	1.3.1.2.1.3	Hardware	LLNL	ED&I	10	0.15 wks	\$0.00	\$0.00	\$378.00	\$378.00	\$370.44	\$0.00	\$748
\neg		LLNL PCD:Coordinator Associate		ED&I	0	0.15 wks	\$0.00	\$0.00	\$0.00	\$378.00	\$0.00	\$0.00	\$0
41	1.3.1.2.1.3	Install & test	LLNL	B&H	2	0.6 wks	\$0.00	\$0.00	\$1,248.00	\$1,248.00	\$1,223.04	\$617.76	\$3,08
		LLNL Mech. Fab: Assembly Tech		B&H	0	0.6 wks	\$0.00	\$0.00	\$0.00	\$1,248.00	\$0.00	\$0.00	\$0
42	1.3.1.2.1.4	lon pumps	LLNL		0	1.2 wks	\$0.00	\$38,000.00	\$2,640.00	\$40,640.00	\$9,769.20	\$7,934.41	\$58,343
43	1.3.1.2.1.4	Hardware	LLNL	ED&I	1	0.15 wks	\$0.00	\$0.00	\$378.00	\$378.00	\$370.44	\$112.27	\$86
\neg		LLNL PCD:Coordinator Associate		ED&I	0	0.15 wks	\$0.00	\$0.00	\$0.00	\$378.00	\$0.00	\$0.00	\$6
44	1.3.1.2.1.4	Hardware	LLNL	M&S	1	0 wks	\$0.00	\$22,000.00	\$0.00	\$22,000.00	\$4,158.00	\$3,923.70	\$30,08
		LLNL M&S Total		M&S	0	22,000	\$0.00	\$0.00	\$0.00	\$22,000.00	\$0.00	\$0.00	\$
45	1.3.1.2.1.4	Controller	LLNL	M&S	1	0 wks	\$0.00	\$16,000.00	\$0.00	\$16,000.00	\$3,024.00	\$2,853.60	\$21,87
\neg		LLNL M&S Total		M&S	0	16,000	\$0.00	\$0.00	\$0.00	\$16,000.00	\$0.00	\$0.00	\$
46	1.3.1.2.1.4	Controller	LLNL	ED&I	1	0.15 wks	\$0.00	\$0.00	\$378.00	\$378.00	\$370.44	\$112.27	\$86
\neg		LLNL PCD:Coordinator Associate		ED&I	0	0.15 wks	\$0.00	\$0.00	\$0.00	\$378.00	\$0.00	\$0.00	\$
47	1.3.1.2.1.4	Install electrical	LLNL	B&H	2	0.3 wks	\$0.00	\$0.00	\$636.00	\$636.00	\$623.28	\$314.82	\$1,57
\neg		LLNL Controls: Technician		B&H	0	0.3 wks	\$0.00	\$0.00	\$0.00	\$636.00	\$0.00	\$0.00	\$
48	1.3.1.2.1.4	Install (mech) and test	LLNL	B&H	2	0.6 wks	\$0.00	\$0.00	\$1,248.00	\$1,248.00	\$1,223.04	\$617.76	\$3,08
		LLNL Mech. Fab: Assembly Tech		B&H	0	0.6 wks	\$0.00	\$0.00	\$0.00	\$1,248.00	\$0.00	\$0.00	\$
49	1.3.1.2.1.5	lon gauges	LLNL		0	0.61 wks	\$0.00	\$5,000.00	\$1,345.20	\$6,345.20	\$2,263.30	\$1,477.79	\$10,086
50	1.3.1.2.1.5	Hardware	LLNL	ED&I	1	0.08 wks	\$0.00	\$0.00	\$201.60	\$201.60	\$197.57	\$59.88	\$45
-		LLNL PCD:Coordinator Associate		ED&I	0	0.08 wks	\$0.00	\$0.00	\$0.00	\$201.60	\$0.00	\$0.00	\$
51	1.3.1.2.1.5	Hardware	LLNL	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$189.00	\$178.35	\$1,36
		LLNL M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$
52	1.3.1.2.1.5	Controller	LLNL	M&S	1	0 wks	\$0.00	\$4,000.00	\$0.00	\$4,000.00	\$756.00	\$713.40	\$5,46
		LLNL M&S Total		M&S	0	4,000	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$
53	1.3.1.2.1.5	Controller	LLNL	ED&I	1	0.08 wks	\$0.00	\$0.00	\$201.60	\$201.60	\$197.57	\$59.88	\$45
\dashv		LLNL PCD:Coordinator Associate		ED&I	0	0.08 wks	\$0.00	\$0.00	\$0.00	\$201.60	\$0.00	\$0.00	\$
54	1.3.1.2.1.5	Install electrical	LLNL	B&H	2	0.15 wks	\$0.00	\$0.00	\$318.00	\$318.00	\$311.64	\$157.41	\$78
\neg		LLNL Controls: Technician		B&H	0	0.15 wks	\$0.00	\$0.00	\$0.00	\$318.00	\$0.00	\$0.00	\$
55	1.3.1.2.1.5	Install (mech) and test	LLNL	B&H	2	0.3 wks	\$0.00	\$0.00	\$624.00	\$624.00	\$611.52	\$308.88	\$1,54
-		LLNL Mech. Fab: Assembly Tech		B&H	0	0.3 wks	\$0.00	\$0.00	\$0.00	\$624.00	\$0.00	\$0.00	\$0

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ID 3756	CWBS 1.3.1.2.1.6	Task Name Spools	OBS LLNL	PHASE	Risk	Units 0.3 wks	PED (Direct)	M&S (Direct) \$500.00	Labor (Direct) \$668.00	Direct Cost \$1,168.00	Overhead Cost \$749.14	Contingency Cost \$369.94	Total Cost \$2,287.0
		·			0				,,,,,,				
757	1.3.1.2.1.6		LLNL	ED&I	1	0.1 wks	\$0.00	\$0.00	\$252.00	\$252.00	\$246.96	\$74.84	\$573.8
		LLNL PCD:Coordinator Associate		ED&I	0	0.1 wks	\$0.00	\$0.00	\$0.00	\$252.00	\$0.00	\$0.00	\$0.0
758	1.3.1.2.1.6	Hardware	LLNL	M&S	1	0 wks	\$0.00	\$500.00	\$0.00	\$500.00	\$94.50	\$89.18	\$683.
		LLNL M&S Total		M&S	0	500	\$0.00	\$0.00	\$0.00	\$500.00	\$0.00	\$0.00	\$0.
759	1.3.1.2.1.6	Installation	LLNL	B&H	2	0.2 wks	\$0.00	\$0.00	\$416.00	\$416.00	\$407.68	\$205.92	\$1,029.
\dashv		LLNL Mech. Fab: Assembly Tech		B&H	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$416.00	\$0.00	\$0.00	\$0.
760	1.3.1.2.1.7	Turbo pumps 500l/s	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
761	1.3.1.2.1.7	Hardware	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
7 62	1.3.1.2.1.7	Hardware	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
763	1.3.1.2.1.7	Controller	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
64	1.3.1.2.1.7	Controller	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
765	1.3.1.2.1.7	Install electrical	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
⁷ 66	1.3.1.2.1.7	Install (mech) and test	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
767	1.3.1.2.1.8	Stands	LLNL		0	2.8 wks	\$0.00	\$12,000.00	\$6,176.00	\$18,176.00	\$8,320.48	\$5,626.20	\$32,122
768	1.3.1.2.1.8		LLNL	ED&I	0	0.8 wks	\$0.00	\$0.00	\$2,016.00	\$2,016.00	\$1,975.68	\$0.00	\$3,991
		LLNL PCD:Coordinator Associate		ED&I	0	0.8 wks	\$0.00	\$0.00	\$0.00	\$2,016.00	\$0.00	\$0.00	\$0
69	1.3.1.2.1.8	Hardware	LLNL	M&S	2	0 wks	\$0.00	\$12,000.00	\$0.00	\$12,000.00	\$2,268.00	\$3,567.00	\$17,835
		LLNL M&S Total		M&S	0	12,000	\$0.00	\$0.00	\$0.00	\$12,000.00	\$0.00	\$0.00	\$0
770	1.3.1.2.1.8	Installation	LLNL	B&H	2	2 wks	\$0.00	\$0.00	\$4,160.00	\$4,160.00	\$4,076.80	\$2,059.20	\$10,296
\dashv		LLNL Mech. Fab: Assembly Tech		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,160.00	\$0.00	\$0.00	\$0
771	1.3.1.2.1.9	Fast close valve & seat (1)	LLNL		0	5 wks	\$0.00	\$32,000.00	\$10,960.00	\$42,960.00	\$16,788.80	\$10,633.44	\$70,382
772	1.3.1.2.1.9	Valve and sensors	LLNL	M&S	1	0 wks	\$0.00	\$32,000.00	\$0.00	\$32,000.00	\$6,048.00	\$5,707.20	\$43,755
\dashv		LLNL M&S Total		M&S	0	32,000	\$0.00	\$0.00	\$0.00	\$32,000.00	\$0.00	\$0.00	\$0
773	1.3.1.2.1.9	Valve and sensors	LLNL	ED&I	1	1 wk	\$0.00	\$0.00	\$2,520.00	\$2,520.00	\$2,469.60	\$748.44	\$5,738
-		LLNL PCD:Coordinator Associate		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,520.00	\$0.00	\$0.00	\$0
774	1.3.1.2.1.9	Assly & Test	LLNL	B&H	2	1 wk	\$0.00	\$0.00	\$2,080.00	\$2,080.00	\$2,038.40	\$1,029.60	\$5,148
_		LLNL Mech. Fab: Assembly Tech		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,080.00	\$0.00	\$0.00	\$0
775	1.3.1.2.1.9		LLNL	B&H	2	3 wks	\$0.00	\$0.00	\$6,360.00	\$6,360.00	\$6,232.80	\$3,148.20	\$15,741
	11011121110	LLNL Controls: Technician	22.12	B&H	0	3 wks	\$0.00	\$0.00	\$0.00	\$6,360.00	\$0.00	\$0.00	\$0
				БФП				.				.	
776	1.3.1.2.2	·			0	4.56 wks	\$0.00	\$45,000.00	\$9,771.20	\$54,771.20	\$18,080.78	\$12,558.13	\$85,410
777	1.3.1.2.2.1	Isolation valve	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
778	1.3.1.2.2.1	Hardware	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
79	1.3.1.2.2.1	Hardware	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
780	1.3.1.2.2.1	Install & test	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0

LCLS (CD1	TEC
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ID		Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
3781	1.3.1.2.2.1	Elect inst	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
782	1.3.1.2.2.2	Isolation valve-Be	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
783	1.3.1.2.2.2	Hardware	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
784	1.3.1.2.2.2	Hardware	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
785	1.3.1.2.2.2	Assemble, install & test	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
786	1.3.1.2.2.2	Elect inst	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
787	1.3.1.2.2.3	Vacuum piping	LLNL		0	0.75 wks	\$0.00	\$2,000.00	\$1,626.00	\$3,626.00	\$1,971.48	\$1,086.73	\$6,684.
788	1.3.1.2.2.3	Hardware	LLNL	M&S	1	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$378.00	\$356.70	\$2,734
		LLNL M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.
789	1.3.1.2.2.3	Hardware	LLNL	ED&I	1	0.15 wks	\$0.00	\$0.00	\$378.00	\$378.00	\$370.44	\$112.27	\$860
		LLNL PCD:Coordinator Associate		ED&I	0	0.15 wks	\$0.00	\$0.00	\$0.00	\$378.00	\$0.00	\$0.00	\$0.
790	1.3.1.2.2.3	Install & test	LLNL	B&H	2	0.6 wks	\$0.00	\$0.00	\$1,248.00	\$1,248.00	\$1,223.04	\$617.76	\$3,088
		LLNL Mech. Fab: Assembly Tech		B&H	0	0.6 wks	\$0.00	\$0.00	\$0.00	\$1,248.00	\$0.00	\$0.00	\$0
791	1.3.1.2.2.4	lon pumps	LLNL		0	1.2 wks	\$0.00	\$38,000.00	\$2,640.00	\$40,640.00	\$9,769.20	\$7,934.41	\$58,343
792	1.3.1.2.2.4	Hardware	LLNL	ED&I	1	0.15 wks	\$0.00	\$0.00	\$378.00	\$378.00	\$370.44	\$112.27	\$860
		LLNL PCD:Coordinator Associate		ED&I	0	0.15 wks	\$0.00	\$0.00	\$0.00	\$378.00	\$0.00	\$0.00	\$0
793	1.3.1.2.2.4	Hardware	LLNL	M&S	1	0 wks	\$0.00	\$22,000.00	\$0.00	\$22,000.00	\$4,158.00	\$3,923.70	\$30,081
		LLNL M&S Total		M&S	0	22,000	\$0.00	\$0.00	\$0.00	\$22,000.00	\$0.00	\$0.00	\$0
794	1.3.1.2.2.4	Controller	LLNL	M&S	1	0 wks	\$0.00	\$16,000.00	\$0.00	\$16,000.00	\$3,024.00	\$2,853.60	\$21,877
		LLNL M&S Total		M&S	0	16,000	\$0.00	\$0.00	\$0.00	\$16,000.00	\$0.00	\$0.00	\$0
795	1.3.1.2.2.4	Controller	LLNL	ED&I	1	0.15 wks	\$0.00	\$0.00	\$378.00	\$378.00	\$370.44	\$112.27	\$860
		LLNL PCD:Coordinator Associate		ED&I	0	0.15 wks	\$0.00	\$0.00	\$0.00	\$378.00	\$0.00	\$0.00	\$0
796	1.3.1.2.2.4		LLNL	B&H	2	0.3 wks	\$0.00	\$0.00	\$636.00	\$636.00	\$623.28	\$314.82	\$1,574
		LLNL Controls: Technician		B&H	0	0.3 wks	\$0.00	\$0.00	\$0.00	\$636.00	\$0.00	\$0.00	\$0
797	1.3.1.2.2.4		LLNL	B&H	2	0.6 wks	\$0.00	\$0.00	\$1,248.00	\$1,248.00	\$1,223.04	\$617.76	\$3,088
131	1.5.1.2.2.4	LLNL Mech. Fab: Assembly Tech	LLINE	B&H	0	0.6 wks	\$0.00	\$0.00	\$0.00	\$1,248.00	\$0.00	\$0.00	\$0,000
798	1.3.1.2.2.5		LLNL	Бан	0	0.61 wks	\$0.00	\$5,000.00	\$1,345.20	\$6,345.20	\$2,263.30	\$1,477.79	\$10,086.
	1.3.1.2.2.5	lon gauges	LLNL	ED&I	0		\$0.00	\$5,000.00	\$1,345.20	\$0,343.20	\$2,263.30 \$197.57	\$1,477.79	\$10,000
799	1.3.1.2.2.5		LLNL		1	0.08 wks	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			,		, , , , ,	
		LLNL PCD:Coordinator Associate		ED&I	0	0.08 wks	\$0.00	\$0.00	\$0.00	\$201.60	\$0.00	\$0.00	\$0
300	1.3.1.2.2.5		LLNL	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$189.00	\$178.35	\$1,367
		LLNL M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0
801	1.3.1.2.2.5		LLNL	M&S	1	0 wks	\$0.00	\$4,000.00	\$0.00	\$4,000.00	\$756.00	\$713.40	\$5,469
		LLNL M&S Total		M&S	0	4,000	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$0
802	1.3.1.2.2.5	Controller	LLNL	ED&I	1	0.08 wks	\$0.00	\$0.00	\$201.60	\$201.60	\$197.57	\$59.88	\$459
		LLNL PCD:Coordinator Associate		ED&I	0	0.08 wks	\$0.00	\$0.00	\$0.00	\$201.60	\$0.00	\$0.00	\$0.

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ID		Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
3803	1.3.1.2.2.5	Install electrical	LLNL	B&H	2	0.15 wks	\$0.00	\$0.00	\$318.00	\$318.00	\$311.64	\$157.41	\$787.0
		LLNL Controls: Technician		B&H	0	0.15 wks	\$0.00	\$0.00	\$0.00	\$318.00	\$0.00	\$0.00	\$0.0
804	1.3.1.2.2.5	Install (mech) and test	LLNL	B&H	2	0.3 wks	\$0.00	\$0.00	\$624.00	\$624.00	\$611.52	\$308.88	\$1,544.4
		LLNL Mech. Fab: Assembly Tech		B&H	0	0.3 wks	\$0.00	\$0.00	\$0.00	\$624.00	\$0.00	\$0.00	\$0.0
305	1.3.1.2.2.6	Spools	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
806	1.3.1.2.2.6	Hardware	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
307	1.3.1.2.2.6	Hardware	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
808	1.3.1.2.2.6	Installation	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
809	1.3.1.2.2.7	Turbo pumps 500l/s	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
310	1.3.1.2.2.7	Hardware	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
811	1.3.1.2.2.7	Hardware	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
312	1.3.1.2.2.7	Controller	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
813	1.3.1.2.2.7	Controller	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
814	1.3.1.2.2.7	Install electrical	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
315	1.3.1.2.2.7	Install (mech) and test	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
316	1.3.1.2.2.8	Stands	LLNL		0	2 wks	\$0.00	\$0.00	\$4,160.00	\$4,160.00	\$4,076.80	\$2,059.20	\$10,296
317	1.3.1.2.2.8	Hardware	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
318	1.3.1.2.2.8	Hardware	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
819	1.3.1.2.2.8	Installation	LLNL	B&H	2	2 wks	\$0.00	\$0.00	\$4,160.00	\$4,160.00	\$4,076.80	\$2,059.20	\$10,296
\dashv		LLNL Mech. Fab: Assembly Tech		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,160.00	\$0.00	\$0.00	\$0.
820	1.3.1.2.3	Hutch A1			0	10.26 wks	\$0.00	\$72,001.00	\$22,479.20	\$94,480.20	\$35,637.81	\$25,423.59	\$155,541.
321	1.3.1.2.3.1	Isolation valve	LLNL		0	0.9 wks	\$0.00	\$4,000.00	\$2,100.00	\$6,100.00	\$2,814.00	\$1,752.90	\$10,666.
322	1.3.1.2.3.1	Hardware	LLNL	ED&I	2	0.5 wks	\$0.00	\$0.00	\$1,260.00	\$1,260.00	\$1,234.80	\$623.70	\$3,118.
\dashv		LLNL PCD:Coordinator Associate		ED&I	0	0.5 wks	\$0.00	\$0.00	\$0.00	\$1,260.00	\$0.00	\$0.00	\$0.
823	1.3.1.2.3.1	Hardware	LLNL	M&S	1	0 wks	\$0.00	\$4,000.00	\$0.00	\$4,000.00	\$756.00	\$713.40	\$5,469
		LLNL M&S Total		M&S	0	4,000	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$0.
324	1.3.1.2.3.1	Install & test	LLNL	B&H	2	0.2 wks	\$0.00	\$0.00	\$416.00	\$416.00	\$407.68	\$205.92	\$1,029
\dashv		LLNL Mech. Fab: Assembly Tech		B&H	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$416.00	\$0.00	\$0.00	\$0.
325	1.3.1.2.3.1	Elect inst	LLNL	B&H	2	0.2 wks	\$0.00	\$0.00	\$424.00	\$424.00	\$415.52	\$209.88	\$1,049
		LLNL Controls: Technician		B&H	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$424.00	\$0.00	\$0.00	\$0.
326	1.3.1.2.3.2	Isolation valve-Be	LLNL		0	0.8 wks	\$0.00	\$1.00	\$1,760.00	\$1,761.00	\$1,724.99	\$606.67	\$4,092
327	1.3.1.2.3.2		LLNL	M&S	0	0 wks	\$0.00	\$1.00	\$0.00	\$1.00	\$0.19	\$0.00	\$1
_		LLNL M&S Total		M&S	0	1	\$0.00	\$0.00	\$0.00	\$1.00	\$0.00	\$0.00	\$0.
328	1.3.1.2.3.2		LLNL	ED&I	1	0.2 wks	\$0.00	\$0.00	\$504.00	\$504.00	\$493.92	\$149.69	\$1,147
		LLNL PCD:Coordinator Associate		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$504.00	\$0.00	\$0.00	\$0.

I CI	S	CD1	TEC

ID		Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
829	1.3.1.2.3.2	Assemble, install & test	LLNL	B&H	1	0.4 wks	\$0.00	\$0.00	\$832.00	\$832.00	\$815.36	\$247.10	\$1,894.4
		LLNL Mech. Fab: Assembly Tech		B&H	0	0.4 wks	\$0.00	\$0.00	\$0.00	\$832.00	\$0.00	\$0.00	\$0.0
830	1.3.1.2.3.2	Elect inst	LLNL	B&H	2	0.2 wks	\$0.00	\$0.00	\$424.00	\$424.00	\$415.52	\$209.88	\$1,049.4
-		LLNL Controls: Technician		B&H	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$424.00	\$0.00	\$0.00	\$0.0
831	1.3.1.2.3.3	Vacuum piping	LLNL		0	0.75 wks	\$0.00	\$2,000.00	\$1,626.00	\$3,626.00	\$1,971.48	\$1,086.73	\$6,684.2
832	1.3.1.2.3.3	Hardware	LLNL	M&S	1	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$378.00	\$356.70	\$2,734.
		LLNL M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.
333	1.3.1.2.3.3	Hardware	LLNL	ED&I	1	0.15 wks	\$0.00	\$0.00	\$378.00	\$378.00	\$370.44	\$112.27	\$860.
\neg		LLNL PCD:Coordinator Associate		ED&I	0	0.15 wks	\$0.00	\$0.00	\$0.00	\$378.00	\$0.00	\$0.00	\$0.
334	1.3.1.2.3.3	Install & test	LLNL	B&H	2	0.6 wks	\$0.00	\$0.00	\$1,248.00	\$1,248.00	\$1,223.04	\$617.76	\$3,088.
\neg		LLNL Mech. Fab: Assembly Tech		B&H	0	0.6 wks	\$0.00	\$0.00	\$0.00	\$1,248.00	\$0.00	\$0.00	\$0.
335	1.3.1.2.3.4	lon pumps	LLNL		0	1.2 wks	\$0.00	\$38,000.00	\$2,640.00	\$40,640.00	\$9,769.20	\$7,561.38	\$57,970.
336	1.3.1.2.3.4	Hardware	LLNL	ED&I	1	0.15 wks	\$0.00	\$0.00	\$378.00	\$378.00	\$370.44	\$112.27	\$860.
		LLNL PCD:Coordinator Associate		ED&I	0	0.15 wks	\$0.00	\$0.00	\$0.00	\$378.00	\$0.00	\$0.00	\$0.
337	1.3.1.2.3.4	Hardware	LLNL	M&S	1	0 wks	\$0.00	\$22,000.00	\$0.00	\$22,000.00	\$4,158.00	\$3,923.70	\$30,081.
\neg		LLNL M&S Total		M&S	0	22,000	\$0.00	\$0.00	\$0.00	\$22,000.00	\$0.00	\$0.00	\$0.
338	1.3.1.2.3.4	Controller	LLNL	M&S	1	0 wks	\$0.00	\$16,000.00	\$0.00	\$16,000.00	\$3,024.00	\$2,853.60	\$21,877
		LLNL M&S Total		M&S	0	16,000	\$0.00	\$0.00	\$0.00	\$16,000.00	\$0.00	\$0.00	\$0.
339	1.3.1.2.3.4	Controller	LLNL	ED&I	1	0.15 wks	\$0.00	\$0.00	\$378.00	\$378.00	\$370.44	\$112.27	\$860
\neg		LLNL PCD:Coordinator Associate		ED&I	0	0.15 wks	\$0.00	\$0.00	\$0.00	\$378.00	\$0.00	\$0.00	\$0.
340	1.3.1.2.3.4	Install electrical	LLNL	B&H	1	0.3 wks	\$0.00	\$0.00	\$636.00	\$636.00	\$623.28	\$188.89	\$1,448
		LLNL Controls: Technician		B&H	0	0.3 wks	\$0.00	\$0.00	\$0.00	\$636.00	\$0.00	\$0.00	\$0.
341	1.3.1.2.3.4	Install (mech) and test	LLNL	B&H	1	0.6 wks	\$0.00	\$0.00	\$1,248.00	\$1,248.00	\$1,223.04	\$370.66	\$2,841
		LLNL Mech. Fab: Assembly Tech		B&H	0	0.6 wks	\$0.00	\$0.00	\$0.00	\$1,248.00	\$0.00	\$0.00	\$0.
842	1.3.1.2.3.5	lon gauges	LLNL		0	0.61 wks	\$0.00	\$5,000.00	\$1,345.20	\$6,345.20	\$2,263.30	\$1,477.79	\$10,086.
343	1.3.1.2.3.5	Hardware	LLNL	ED&I	1	0.08 wks	\$0.00	\$0.00	\$201.60	\$201.60	\$197.57	\$59.88	\$459.
\neg		LLNL PCD:Coordinator Associate		ED&I	0	0.08 wks	\$0.00	\$0.00	\$0.00	\$201.60	\$0.00	\$0.00	\$0.
844	1.3.1.2.3.5	Hardware	LLNL	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$189.00	\$178.35	\$1,367
		LLNL M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0
845	1.3.1.2.3.5	Controller	LLNL	M&S	1	0 wks	\$0.00	\$4,000.00	\$0.00	\$4,000.00	\$756.00	\$713.40	\$5,469
\neg		LLNL M&S Total		M&S	0	4,000	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$0
346	1.3.1.2.3.5	Controller	LLNL	ED&I	1	0.08 wks	\$0.00	\$0.00	\$201.60	\$201.60	\$197.57	\$59.88	\$459
\dashv		LLNL PCD:Coordinator Associate		ED&I	0	0.08 wks	\$0.00	\$0.00	\$0.00	\$201.60	\$0.00	\$0.00	\$0.
347	1.3.1.2.3.5	Install electrical	LLNL	B&H	2	0.15 wks	\$0.00	\$0.00	\$318.00	\$318.00	\$311.64	\$157.41	\$787
-		LLNL Controls: Technician		B&H	0	0.15 wks	\$0.00	\$0.00	\$0.00	\$318.00	\$0.00	\$0.00	\$0.

I CI	S	CD1	TEC

ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
3848	1.3.1.2.3.5	Install (mech) and test	LLNL	B&H	2	0.3 wks	\$0.00	\$0.00	\$624.00	\$624.00	\$611.52	\$308.88	\$1,544.4
		LLNL Mech. Fab: Assembly Tech		B&H	0	0.3 wks	\$0.00	\$0.00	\$0.00	\$624.00	\$0.00	\$0.00	\$0.00
3849	1.3.1.2.3.6	Spools	LLNL		0	1 wk	\$0.00	\$2,000.00	\$2,168.00	\$4,168.00	\$2,502.64	\$1,330.07	\$8,000.7
3850	1.3.1.2.3.6	Hardware	LLNL	ED&I	1	0.2 wks	\$0.00	\$0.00	\$504.00	\$504.00	\$493.92	\$149.69	\$1,147.6
		LLNL PCD:Coordinator Associate		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$504.00	\$0.00	\$0.00	\$0.00
3851	1.3.1.2.3.6	Hardware	LLNL	M&S	1	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$378.00	\$356.70	\$2,734.70
		LLNL M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.00
3852	1.3.1.2.3.6	Installation	LLNL	B&H	2	0.8 wks	\$0.00	\$0.00	\$1,664.00	\$1,664.00	\$1,630.72	\$823.68	\$4,118.4
		LLNL Mech. Fab: Assembly Tech		B&H	0	0.8 wks	\$0.00	\$0.00	\$0.00	\$1,664.00	\$0.00	\$0.00	\$0.00
3853	1.3.1.2.3.7	Turbo pumps 500l/s	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
3854	1.3.1.2.3.7	Hardware	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
3855	1.3.1.2.3.7	Hardware	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
3856	1.3.1.2.3.7	Controller	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
3857	1.3.1.2.3.7	Controller	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
3858	1.3.1.2.3.7	Install electrical	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
3859	1.3.1.2.3.7	Install (mech) and test	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
3860	1.3.1.2.3.8	Stands	LLNL		0	5 wks	\$0.00	\$21,000.00	\$10,840.00	\$31,840.00	\$14,592.20	\$11,608.05	\$58,040.25
3861	1.3.1.2.3.8	Hardware	LLNL	ED&I	2	1 wk	\$0.00	\$0.00	\$2,520.00	\$2,520.00	\$2,469.60	\$1,247.40	\$6,237.0
		LLNL PCD:Coordinator Associate		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,520.00	\$0.00	\$0.00	\$0.00
3862	1.3.1.2.3.8	Hardware	LLNL	M&S	2	0 wks	\$0.00	\$21,000.00	\$0.00	\$21,000.00	\$3,969.00	\$6,242.25	\$31,211.2
		LLNL M&S Total		M&S	0	21,000	\$0.00	\$0.00	\$0.00	\$21,000.00	\$0.00	\$0.00	\$0.00
3863	1.3.1.2.3.8	Installation	LLNL	B&H	2	4 wks	\$0.00	\$0.00	\$8,320.00	\$8,320.00	\$8,153.60	\$4,118.40	\$20,592.0
		LLNL Mech. Fab: Assembly Tech		B&H	0	4 wks	\$0.00	\$0.00	\$0.00	\$8,320.00	\$0.00	\$0.00	\$0.00
3864	1.3.1.2.4	Hutch A2			0	6.16 wks	\$0.00	\$64,000.00	\$13,335.20	\$77,335.20	\$25,164.50	\$18,631.37	\$121,131.07
3865	1.3.1.2.4.1	Isolation valve	LLNL		0	0.3 wks	\$0.00	\$2,000.00	\$672.00	\$2,672.00	\$1,036.56	\$689.34	\$4,397.90
3866	1.3.1.2.4.1	Hardware	LLNL	ED&I	2	0.1 wks	\$0.00	\$0.00	\$252.00	\$252.00	\$246.96	\$124.74	\$623.70
0000	1.0.1.2.4.1	LLNL PCD:Coordinator Associate	LLIVE	ED&I	0	0.1 wks	\$0.00	\$0.00	\$0.00	\$252.00	\$0.00	\$0.00	\$0.00
3867	1.3.1.2.4.1	Hardware	LLNL	M&S		0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$378.00	\$356.70	\$2,734.70
3007	1.0.1.2.4.1	LLNL M&S Total	LLIVE	M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.00
3868	1.3.1.2.4.1	Install & test	LLNL	B&H	2	0.1 wks	\$0.00	\$0.00	\$208.00	\$208.00	\$203.84	\$102.96	\$514.8
		LLNL Mech. Fab: Assembly Tech		B&H	0	0.1 wks	\$0.00	\$0.00	\$0.00	\$208.00	\$0.00	\$0.00	\$0.00
3869	1.3.1.2.4.1	Elect inst	LLNL	B&H	2	0.1 wks	\$0.00	\$0.00	\$212.00	\$212.00	\$207.76	\$104.94	\$524.70
		LLNL Controls: Technician		B&H	0	0.1 wks	\$0.00	\$0.00	\$0.00	\$212.00	\$0.00	\$0.00	\$0.00
3870	1.3.1.2.4.2	Isolation valve-Be	LLNL		0	1.2 wks	\$0.00	\$8,000.00	\$2,640.00	\$10,640.00	\$4,099.20	\$2,583.91	\$17,323.11
3871	1.3.1.2.4.2	Hardware	LLNL	M&S	1	0 wks	\$0.00	\$8,000.00	\$0.00	\$8,000.00	\$1,512.00	\$1,426.80	\$10,938.8

I CI	S	CD1	TEC

ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		LLNL M&S Total		M&S	0	8,000	\$0.00	\$0.00	\$0.00	\$8,000.00	\$0.00	\$0.00	\$0.
372	1.3.1.2.4.2	Hardware	LLNL	ED&I	1	0.3 wks	\$0.00	\$0.00	\$756.00	\$756.00	\$740.88	\$224.53	\$1,721
		LLNL PCD:Coordinator Associate		ED&I	0	0.3 wks	\$0.00	\$0.00	\$0.00	\$756.00	\$0.00	\$0.00	\$0
373	1.3.1.2.4.2	Assemble, install & test	LLNL	B&H	2	0.6 wks	\$0.00	\$0.00	\$1,248.00	\$1,248.00	\$1,223.04	\$617.76	\$3,088
\dashv		LLNL Mech. Fab: Assembly Tech		B&H	0	0.6 wks	\$0.00	\$0.00	\$0.00	\$1,248.00	\$0.00	\$0.00	\$0
374	1.3.1.2.4.2	Elect inst	LLNL	B&H	2	0.3 wks	\$0.00	\$0.00	\$636.00	\$636.00	\$623.28	\$314.82	\$1,574
		LLNL Controls: Technician		B&H	0	0.3 wks	\$0.00	\$0.00	\$0.00	\$636.00	\$0.00	\$0.00	\$0
375	1.3.1.2.4.3	Vacuum piping	LLNL		0	0.75 wks	\$0.00	\$2,000.00	\$1,626.00	\$3,626.00	\$1,971.48	\$1,086.73	\$6,684
76	1.3.1.2.4.3	Hardware	LLNL	M&S	1	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$378.00	\$356.70	\$2,734
\dashv		LLNL M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0
377	1.3.1.2.4.3	Hardware	LLNL	ED&I	1	0.15 wks	\$0.00	\$0.00	\$378.00	\$378.00	\$370.44	\$112.27	\$860
-		LLNL PCD:Coordinator Associate		ED&I	0	0.15 wks	\$0.00	\$0.00	\$0.00	\$378.00	\$0.00	\$0.00	\$0
378	1.3.1.2.4.3	Install & test	LLNL	B&H	2	0.6 wks	\$0.00	\$0.00	\$1,248.00	\$1,248.00	\$1,223.04	\$617.76	\$3,088
-		LLNL Mech. Fab: Assembly Tech		B&H	0	0.6 wks	\$0.00	\$0.00	\$0.00	\$1,248.00	\$0.00	\$0.00	\$0
379	1.3.1.2.4.4	lon pumps	LLNL		0	1.2 wks	\$0.00	\$38,000.00	\$2,640.00	\$40,640.00	\$9,769.20	\$7,934.41	\$58,343
80	1.3.1.2.4.4	Hardware	LLNL	ED&I	1	0.15 wks	\$0.00	\$0.00	\$378.00	\$378.00	\$370.44	\$112.27	\$860
\dashv		LLNL PCD:Coordinator Associate		ED&I	0	0.15 wks	\$0.00	\$0.00	\$0.00	\$378.00	\$0.00	\$0.00	\$0
81	1.3.1.2.4.4	Hardware	LLNL	M&S	1	0 wks	\$0.00	\$22,000.00	\$0.00	\$22,000.00	\$4,158.00	\$3,923.70	\$30,08
		LLNL M&S Total		M&S	0	22,000	\$0.00	\$0.00	\$0.00	\$22,000.00	\$0.00	\$0.00	\$0
382	1.3.1.2.4.4	Controller	LLNL	M&S	1	0 wks	\$0.00	\$16,000.00	\$0.00	\$16,000.00	\$3,024.00	\$2,853.60	\$21,87
_		LLNL M&S Total		M&S	0	16,000	\$0.00	\$0.00	\$0.00	\$16,000.00	\$0.00	\$0.00	\$6
383	1.3.1.2.4.4	Controller	LLNL	ED&I	1	0.15 wks	\$0.00	\$0.00	\$378.00	\$378.00	\$370.44	\$112.27	\$86
-		LLNL PCD:Coordinator Associate		ED&I	0	0.15 wks	\$0.00	\$0.00	\$0.00	\$378.00	\$0.00	\$0.00	\$0
884	1.3.1.2.4.4	Install electrical	LLNL	B&H	2	0.3 wks	\$0.00	\$0.00	\$636.00	\$636.00	\$623.28	\$314.82	\$1,57
\dashv		LLNL Controls: Technician		B&H	0	0.3 wks	\$0.00	\$0.00	\$0.00	\$636.00	\$0.00	\$0.00	\$0
85	1.3.1.2.4.4	Install (mech) and test	LLNL	B&H	2	0.6 wks	\$0.00	\$0.00	\$1,248.00	\$1,248.00	\$1,223.04	\$617.76	\$3,08
-		LLNL Mech. Fab: Assembly Tech		B&H	0	0.6 wks	\$0.00	\$0.00	\$0.00	\$1,248.00	\$0.00	\$0.00	\$0
886	1.3.1.2.4.5	Ion gauges	LLNL		0	0.61 wks	\$0.00	\$5,000.00	\$1,345.20	\$6,345.20	\$2,263.30	\$1,477.79	\$10,086
387	1.3.1.2.4.5	Hardware	LLNL	ED&I	1	0.08 wks	\$0.00	\$0.00	\$201.60	\$201.60	\$197.57	\$59.88	\$459
_		LLNL PCD:Coordinator Associate		ED&I	0	0.08 wks	\$0.00	\$0.00	\$0.00	\$201.60	\$0.00	\$0.00	\$0
88	1.3.1.2.4.5	Hardware	LLNL	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$189.00	\$178.35	\$1,36
_	-	LLNL M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0
389	1.3.1.2.4.5		LLNL	M&S	1	0 wks	\$0.00	\$4,000.00	\$0.00	\$4,000.00	\$756.00	\$713.40	\$5,46
-		LLNL M&S Total		M&S	0	4,000	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$
		E. E MGO FOIG	LLNL	ED&I		0.08 wks	\$0.00	\$0.00	\$201.60	\$201.60	\$197.57	\$59.88	\$45

101	0	CD4	TEC
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ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		LLNL PCD:Coordinator Associate		ED&I	0	0.08 wks	\$0.00	\$0.00	\$0.00	\$201.60	\$0.00	\$0.00	\$0.0
3891	1.3.1.2.4.5	Install electrical	LLNL	B&H	2	0.15 wks	\$0.00	\$0.00	\$318.00	\$318.00	\$311.64	\$157.41	\$787.0
		LLNL Controls: Technician		B&H	0	0.15 wks	\$0.00	\$0.00	\$0.00	\$318.00	\$0.00	\$0.00	\$0.0
3892	1.3.1.2.4.5	Install (mech) and test	LLNL	B&H	2	0.3 wks	\$0.00	\$0.00	\$624.00	\$624.00	\$611.52	\$308.88	\$1,544.4
		LLNL Mech. Fab: Assembly Tech		B&H	0	0.3 wks	\$0.00	\$0.00	\$0.00	\$624.00	\$0.00	\$0.00	\$0.0
3893	1.3.1.2.4.6	Spools	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
3894	1.3.1.2.4.6	Hardware	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
3895	1.3.1.2.4.6	Hardware	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
3896	1.3.1.2.4.6	Installation	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
3897	1.3.1.2.4.7	Turbo pumps 500l/s	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
3898	1.3.1.2.4.7	Hardware	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
3899	1.3.1.2.4.7	Hardware	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
3900	1.3.1.2.4.7	Controller	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
3901	1.3.1.2.4.7	Controller	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
3902	1.3.1.2.4.7	Install electrical	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
3903	1.3.1.2.4.7	Install (mech) and test	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
3904	1.3.1.2.4.8	Stands	LLNL		0	2.1 wks	\$0.00	\$9,000.00	\$4,412.00	\$13,412.00	\$6,024.76	\$4,859.19	\$24,295.9
3905	1.3.1.2.4.8	Hardware	LLNL	ED&I	2	0.1 wks	\$0.00	\$0.00	\$252.00	\$252.00	\$246.96	\$124.74	\$623.7
		LLNL PCD:Coordinator Associate		ED&I	0	0.1 wks	\$0.00	\$0.00	\$0.00	\$252.00	\$0.00	\$0.00	\$0.0
3906	1.3.1.2.4.8	Hardware	LLNL	M&S	2	0 wks	\$0.00	\$9,000.00	\$0.00	\$9,000.00	\$1,701.00	\$2,675.25	\$13,376.2
		LLNL M&S Total		M&S	0	9,000	\$0.00	\$0.00	\$0.00	\$9,000.00	\$0.00	\$0.00	\$0.0
3907	1.3.1.2.4.8	Installation	LLNL	B&H	2	2 wks	\$0.00	\$0.00	\$4,160.00	\$4,160.00	\$4,076.80	\$2,059.20	\$10,296.0
		LLNL Mech. Fab: Assembly Tech		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,160.00	\$0.00	\$0.00	\$0.0
3908	1.3.1.2.5	Hutch A3			0	4.66 wks	\$0.00	\$54,000.00	\$10,023.20	\$64,023.20	\$20,028.74	\$15,358.12	\$99,410.0
3909	1.3.1.2.5.1	Isolation valve	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
3910	1.3.1.2.5.1	Hardware	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
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3911	1.3.1.2.5.1	Hardware	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
3912	1.3.1.2.5.1	Install & test	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
3913	1.3.1.2.5.1	Elect inst	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
3914	1.3.1.2.5.2	Isolation valve-Be	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
3915	1.3.1.2.5.2		LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
3916	1.3.1.2.5.2	Hardware	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
3917	1.3.1.2.5.2	Assemble, install & test	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
3918	1.3.1.2.5.2	Elect inst	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
3919	1.3.1.2.5.3	Vacuum piping	LLNL		0	0.75 wks	\$0.00	\$2,000.00	\$1,626.00	\$3,626.00	\$1,971.48	\$1,086.73	\$6,684.2

101	0	CD4	TEC
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ID		Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
920	1.3.1.2.5.3	Hardware	LLNL	M&S	1	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$378.00	\$356.70	\$2,734.7
		LLNL M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.0
921	1.3.1.2.5.3	Hardware	LLNL	ED&I	1	0.15 wks	\$0.00	\$0.00	\$378.00	\$378.00	\$370.44	\$112.27	\$860.
		LLNL PCD:Coordinator Associate		ED&I	0	0.15 wks	\$0.00	\$0.00	\$0.00	\$378.00	\$0.00	\$0.00	\$0.0
922	1.3.1.2.5.3	Install & test	LLNL	B&H	2	0.6 wks	\$0.00	\$0.00	\$1,248.00	\$1,248.00	\$1,223.04	\$617.76	\$3,088.
		LLNL Mech. Fab: Assembly Tech		B&H	0	0.6 wks	\$0.00	\$0.00	\$0.00	\$1,248.00	\$0.00	\$0.00	\$0.
923	1.3.1.2.5.4	lon pumps	LLNL		0	1.2 wks	\$0.00	\$38,000.00	\$2,640.00	\$40,640.00	\$9,769.20	\$7,934.41	\$58,343.0
924	1.3.1.2.5.4	Hardware	LLNL	ED&I	1	0.15 wks	\$0.00	\$0.00	\$378.00	\$378.00	\$370.44	\$112.27	\$860.
\dashv		LLNL PCD:Coordinator Associate		ED&I	0	0.15 wks	\$0.00	\$0.00	\$0.00	\$378.00	\$0.00	\$0.00	\$0.
925	1.3.1.2.5.4	Hardware	LLNL	M&S	1	0 wks	\$0.00	\$22,000.00	\$0.00	\$22,000.00	\$4,158.00	\$3,923.70	\$30,081
		LLNL M&S Total		M&S	0	22,000	\$0.00	\$0.00	\$0.00	\$22,000.00	\$0.00	\$0.00	\$0.
926	1.3.1.2.5.4	Controller	LLNL	M&S	1	0 wks	\$0.00	\$16,000.00	\$0.00	\$16,000.00	\$3,024.00	\$2,853.60	\$21,877
		LLNL M&S Total		M&S	0	16,000	\$0.00	\$0.00	\$0.00	\$16,000.00	\$0.00	\$0.00	\$0.
927	1.3.1.2.5.4	Controller	LLNL	ED&I	1	0.15 wks	\$0.00	\$0.00	\$378.00	\$378.00	\$370.44	\$112.27	\$860
		LLNL PCD:Coordinator Associate		ED&I	0	0.15 wks	\$0.00	\$0.00	\$0.00	\$378.00	\$0.00	\$0.00	\$0.
28	1.3.1.2.5.4	Install electrical	LLNL	B&H	2	0.3 wks	\$0.00	\$0.00	\$636.00	\$636.00	\$623.28	\$314.82	\$1,574
		LLNL Controls: Technician		В&Н	0	0.3 wks	\$0.00	\$0.00	\$0.00	\$636.00	\$0.00	\$0.00	\$0
929	1.3.1.2.5.4	Install (mech) and test	LLNL	B&H	2	0.6 wks	\$0.00	\$0.00	\$1,248.00	\$1,248.00	\$1,223.04	\$617.76	\$3,088
\dashv		LLNL Mech. Fab: Assembly Tech		B&H	0	0.6 wks	\$0.00	\$0.00	\$0.00	\$1,248.00	\$0.00	\$0.00	\$0.
930	1.3.1.2.5.5	lon gauges	LLNL		0	0.61 wks	\$0.00	\$5,000.00	\$1,345.20	\$6,345.20	\$2,263.30	\$1,477.79	\$10,086.
931	1.3.1.2.5.5	Hardware	LLNL	ED&I	1	0.08 wks	\$0.00	\$0.00	\$201.60	\$201.60	\$197.57	\$59.88	\$459
		LLNL PCD:Coordinator Associate		ED&I	0	0.08 wks	\$0.00	\$0.00	\$0.00	\$201.60	\$0.00	\$0.00	\$0.
932	1.3.1.2.5.5	Hardware	LLNL	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$189.00	\$178.35	\$1,367
		LLNL M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.
933	1.3.1.2.5.5	Controller	LLNL	M&S	1	0 wks	\$0.00	\$4,000.00	\$0.00	\$4,000.00	\$756.00	\$713.40	\$5,469
\dashv		LLNL M&S Total		M&S	0	4,000	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$0.
934	1.3.1.2.5.5	Controller	LLNL	ED&I	1	0.08 wks	\$0.00	\$0.00	\$201.60	\$201.60	\$197.57	\$59.88	\$459
\dashv		LLNL PCD:Coordinator Associate		ED&I	0	0.08 wks	\$0.00	\$0.00	\$0.00	\$201.60	\$0.00	\$0.00	\$0.
935	1.3.1.2.5.5	Install electrical	LLNL	B&H	2	0.15 wks	\$0.00	\$0.00	\$318.00	\$318.00	\$311.64	\$157.41	\$787
		LLNL Controls: Technician		B&H	0	0.15 wks	\$0.00	\$0.00	\$0.00	\$318.00	\$0.00	\$0.00	\$0
936	1.3.1.2.5.5	Install (mech) and test	LLNL	B&H	2	0.3 wks	\$0.00	\$0.00	\$624.00	\$624.00	\$611.52	\$308.88	\$1,544
\dashv		LLNL Mech. Fab: Assembly Tech		B&H	0	0.3 wks	\$0.00	\$0.00	\$0.00	\$624.00	\$0.00	\$0.00	\$0.
937	1.3.1.2.5.6	Spools	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
938	1.3.1.2.5.6	Hardware	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
939	1.3.1.2.5.6	Hardware	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0

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ID		Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
940	1.3.1.2.5.6	Installation	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
941	1.3.1.2.5.7	Turbo pumps 500l/s	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
942	1.3.1.2.5.7	Hardware	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
943	1.3.1.2.5.7	Hardware	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
944	1.3.1.2.5.7	Controller	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
945	1.3.1.2.5.7	Controller	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
946	1.3.1.2.5.7	Install electrical	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
947	1.3.1.2.5.7	Install (mech) and test	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
948	1.3.1.2.5.8	Stands	LLNL		0	2.1 wks	\$0.00	\$9,000.00	\$4,412.00	\$13,412.00	\$6,024.76	\$4,859.19	\$24,295.
949	1.3.1.2.5.8	Hardware	LLNL	ED&I	2	0.1 wks	\$0.00	\$0.00	\$252.00	\$252.00	\$246.96	\$124.74	\$623
		LLNL PCD:Coordinator Associate		ED&I	0	0.1 wks	\$0.00	\$0.00	\$0.00	\$252.00	\$0.00	\$0.00	\$0.
950	1.3.1.2.5.8	Hardware	LLNL	M&S	2	0 wks	\$0.00	\$9,000.00	\$0.00	\$9,000.00	\$1,701.00	\$2,675.25	\$13,376
		LLNL M&S Total		M&S	0	9,000	\$0.00	\$0.00	\$0.00	\$9,000.00	\$0.00	\$0.00	\$0
951	1.3.1.2.5.8	Installation	LLNL	B&H	2	2 wks	\$0.00	\$0.00	\$4,160.00	\$4,160.00	\$4,076.80	\$2,059.20	\$10,296
		LLNL Mech. Fab: Assembly Tech		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,160.00	\$0.00	\$0.00	\$0
952	1.3.1.2.6	Hutch A4			0	5.86 wks	\$0.00	\$62,000.00	\$12,663.20	\$74,663.20	\$24,127.94	\$17,942.03	\$116,733
53	1.3.1.2.6.1	Isolation valve	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
954	1.3.1.2.6.1	Hardware	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
55	1.3.1.2.6.1	Hardware	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
956	1.3.1.2.6.1	Install & test	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
957	1.3.1.2.6.1	Elect inst	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
958	1.3.1.2.6.2	Isolation valve-Be	LLNL		0	1.2 wks	\$0.00	\$8,000.00	\$2,640.00	\$10,640.00	\$4,099.20	\$2,583.91	\$17,323
959	1.3.1.2.6.2	Hardware	LLNL	M&S	1	0 wks	\$0.00	\$8,000.00	\$0.00	\$8,000.00	\$1,512.00	\$1,426.80	\$10,938
		LLNL M&S Total		M&S	0	8,000	\$0.00	\$0.00	\$0.00	\$8,000.00	\$0.00	\$0.00	\$0
960	1.3.1.2.6.2	Hardware	LLNL	ED&I	1	0.3 wks	\$0.00	\$0.00	\$756.00	\$756.00	\$740.88	\$224.53	\$1,721
		LLNL PCD:Coordinator Associate		ED&I	0	0.3 wks	\$0.00	\$0.00	\$0.00	\$756.00	\$0.00	\$0.00	\$0
961	1.3.1.2.6.2	Assemble, install & test	LLNL	B&H	2	0.6 wks	\$0.00	\$0.00	\$1,248.00	\$1,248.00	\$1,223.04	\$617.76	\$3,088
		LLNL Mech. Fab: Assembly Tech		B&H	0	0.6 wks	\$0.00	\$0.00	\$0.00	\$1,248.00	\$0.00	\$0.00	\$0
962	1.3.1.2.6.2	Elect inst	LLNL	B&H	2	0.3 wks	\$0.00	\$0.00	\$636.00	\$636.00	\$623.28	\$314.82	\$1,574
		LLNL Controls: Technician		B&H	0	0.3 wks	\$0.00	\$0.00	\$0.00	\$636.00	\$0.00	\$0.00	\$0
63	1.3.1.2.6.3	Vacuum piping	LLNL		0	0.75 wks	\$0.00	\$2,000.00	\$1,626.00	\$3,626.00	\$1,971.48	\$1,086.73	\$6,684
64	1.3.1.2.6.3	Hardware	LLNL	M&S	1	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$378.00	\$356.70	\$2,734
		LLNL M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0
965	1.3.1.2.6.3	Hardware	LLNL	ED&I	1	0.15 wks	\$0.00	\$0.00	\$378.00	\$378.00	\$370.44	\$112.27	\$860
		LLNL PCD:Coordinator Associate		ED&I	0	0.15 wks	\$0.00	\$0.00	\$0.00	\$378.00	\$0.00	\$0.00	\$0

101	0	CD4	TEC
LUL	٠.	CUI	TEC

ID		Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
3966	1.3.1.2.6.3	Install & test	LLNL	B&H	2	0.6 wks	\$0.00	\$0.00	\$1,248.00	\$1,248.00	\$1,223.04	\$617.76	\$3,088.
		LLNL Mech. Fab: Assembly Tech		B&H	0	0.6 wks	\$0.00	\$0.00	\$0.00	\$1,248.00	\$0.00	\$0.00	\$0.
967	1.3.1.2.6.4	lon pumps	LLNL		0	1.2 wks	\$0.00	\$38,000.00	\$2,640.00	\$40,640.00	\$9,769.20	\$7,934.41	\$58,343.
968	1.3.1.2.6.4	Hardware	LLNL	ED&I	1	0.15 wks	\$0.00	\$0.00	\$378.00	\$378.00	\$370.44	\$112.27	\$860
\dashv		LLNL PCD:Coordinator Associate		ED&I	0	0.15 wks	\$0.00	\$0.00	\$0.00	\$378.00	\$0.00	\$0.00	\$0
969	1.3.1.2.6.4	Hardware	LLNL	M&S	1	0 wks	\$0.00	\$22,000.00	\$0.00	\$22,000.00	\$4,158.00	\$3,923.70	\$30,081
\dashv		LLNL M&S Total		M&S	0	22,000	\$0.00	\$0.00	\$0.00	\$22,000.00	\$0.00	\$0.00	\$0
970	1.3.1.2.6.4	Controller	LLNL	M&S	1	0 wks	\$0.00	\$16,000.00	\$0.00	\$16,000.00	\$3,024.00	\$2,853.60	\$21,877
		LLNL M&S Total		M&S	0	16,000	\$0.00	\$0.00	\$0.00	\$16,000.00	\$0.00	\$0.00	\$0
71	1.3.1.2.6.4	Controller	LLNL	ED&I	1	0.15 wks	\$0.00	\$0.00	\$378.00	\$378.00	\$370.44	\$112.27	\$860
\dashv		LLNL PCD:Coordinator Associate		ED&I	0	0.15 wks	\$0.00	\$0.00	\$0.00	\$378.00	\$0.00	\$0.00	\$0
72	1.3.1.2.6.4	Install electrical	LLNL	B&H	2	0.3 wks	\$0.00	\$0.00	\$636.00	\$636.00	\$623.28	\$314.82	\$1,574
\dashv		LLNL Controls: Technician		B&H	0	0.3 wks	\$0.00	\$0.00	\$0.00	\$636.00	\$0.00	\$0.00	\$0
73	1.3.1.2.6.4	Install (mech) and test	LLNL	B&H	2	0.6 wks	\$0.00	\$0.00	\$1,248.00	\$1,248.00	\$1,223.04	\$617.76	\$3,088
\dashv		LLNL Mech. Fab: Assembly Tech		B&H	0	0.6 wks	\$0.00	\$0.00	\$0.00	\$1,248.00	\$0.00	\$0.00	\$0
74	1.3.1.2.6.5	lon gauges	LLNL		0	0.61 wks	\$0.00	\$5,000.00	\$1,345.20	\$6,345.20	\$2,263.30	\$1,477.79	\$10,086
75	1.3.1.2.6.5	Hardware	LLNL	ED&I	1	0.08 wks	\$0.00	\$0.00	\$201.60	\$201.60	\$197.57	\$59.88	\$45
\dashv		LLNL PCD:Coordinator Associate		ED&I	0	0.08 wks	\$0.00	\$0.00	\$0.00	\$201.60	\$0.00	\$0.00	\$6
76	1.3.1.2.6.5	Hardware	LLNL	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$189.00	\$178.35	\$1,36
		LLNL M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$6
77	1.3.1.2.6.5	Controller	LLNL	M&S	1	0 wks	\$0.00	\$4,000.00	\$0.00	\$4,000.00	\$756.00	\$713.40	\$5,46
\dashv		LLNL M&S Total		M&S	0	4,000	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$6
978	1.3.1.2.6.5	Controller	LLNL	ED&I	1	0.08 wks	\$0.00	\$0.00	\$201.60	\$201.60	\$197.57	\$59.88	\$45
		LLNL PCD:Coordinator Associate		ED&I	0	0.08 wks	\$0.00	\$0.00	\$0.00	\$201.60	\$0.00	\$0.00	\$6
79	1.3.1.2.6.5	Install electrical	LLNL	B&H	2	0.15 wks	\$0.00	\$0.00	\$318.00	\$318.00	\$311.64	\$157.41	\$78
\dashv		LLNL Controls: Technician		B&H	0	0.15 wks	\$0.00	\$0.00	\$0.00	\$318.00	\$0.00	\$0.00	\$6
080	1.3.1.2.6.5	Install (mech) and test	LLNL	B&H	2	0.3 wks	\$0.00	\$0.00	\$624.00	\$624.00	\$611.52	\$308.88	\$1,54
\dashv		LLNL Mech. Fab: Assembly Tech		B&H	0	0.3 wks	\$0.00	\$0.00	\$0.00	\$624.00	\$0.00	\$0.00	\$0
81	1.3.1.2.6.6	Spools	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
82	1.3.1.2.6.6	Hardware	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$
83	1.3.1.2.6.6	Hardware	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$
84	1.3.1.2.6.6	Installation	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$
985	1.3.1.2.6.7	Turbo pumps 500l/s	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$(
986	1.3.1.2.6.7	Hardware	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$
987	1.3.1.2.6.7	Hardware	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$

I CI	S	CD1	TEC

						LCLS_CD1_TEC	,						
ID		Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
3988	1.3.1.2.6.7	Controller	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
3989	1.3.1.2.6.7	Controller	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
3990	1.3.1.2.6.7	Install electrical	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
3991	1.3.1.2.6.7	Install (mech) and test	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
3992	1.3.1.2.6.8	Stands	LLNL		0	2.1 wks	\$0.00	\$9,000.00	\$4,412.00	\$13,412.00	\$6,024.76	\$4,859.19	\$24,295.95
3993	1.3.1.2.6.8	Hardware	LLNL	ED&I	2	0.1 wks	\$0.00	\$0.00	\$252.00	\$252.00	\$246.96	\$124.74	\$623.70
		LLNL PCD:Coordinator Associate		ED&I	0	0.1 wks	\$0.00	\$0.00	\$0.00	\$252.00	\$0.00	\$0.00	\$0.00
3994	1.3.1.2.6.8	Hardware	LLNL	M&S	2	0 wks	\$0.00	\$9,000.00	\$0.00	\$9,000.00	\$1,701.00	\$2,675.25	\$13,376.25
		LLNL M&S Total		M&S	0	9,000	\$0.00	\$0.00	\$0.00	\$9,000.00	\$0.00	\$0.00	\$0.00
3995	1.3.1.2.6.8	Installation	LLNL	B&H	2	2 wks	\$0.00	\$0.00	\$4,160.00	\$4,160.00	\$4,076.80	\$2,059.20	\$10,296.00
		LLNL Mech. Fab: Assembly Tech		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,160.00	\$0.00	\$0.00	\$0.00
3996	1.3.1.2.7	Tunnel			0	63.6 wks	\$0.00	\$713,500.00	\$137,816.00	\$851,316.00	\$269,911.18	\$206,054.77	\$1,327,281.95
3997	1.3.1.2.7.1	Isolation valve	LLNL		0	0.6 wks	\$0.00	\$4,000.00	\$1,344.00	\$5,344.00	\$2,073.12	\$1,378.68	\$8,795.80
3998	1.3.1.2.7.1	Hardware	LLNL	ED&I	2	0.2 wks	\$0.00	\$0.00	\$504.00	\$504.00	\$493.92	\$249.48	\$1,247.40
		LLNL PCD:Coordinator Associate		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$504.00	\$0.00	\$0.00	\$0.00
3999	1.3.1.2.7.1	Hardware	LLNL	M&S	1	0 wks	\$0.00	\$4,000.00	\$0.00	\$4,000.00	\$756.00	\$713.40	\$5,469.40
		LLNL M&S Total		M&S	0	4,000	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$0.00
4000	1.3.1.2.7.1	Install & test	LLNL	B&H	2	0.2 wks	\$0.00	\$0.00	\$416.00	\$416.00	\$407.68	\$205.92	\$1,029.60
		LLNL Mech. Fab: Assembly Tech		B&H	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$416.00	\$0.00	\$0.00	\$0.00
4001	1.3.1.2.7.1	Elect inst	LLNL	B&H	2	0.2 wks	\$0.00	\$0.00	\$424.00	\$424.00	\$415.52	\$209.88	\$1,049.40
		LLNL Controls: Technician		B&H	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$424.00	\$0.00	\$0.00	\$0.00
4002	1.3.1.2.7.2	Isolation valve-Be	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
4003	1.3.1.2.7.2	Hardware	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
4004	1.3.1.2.7.2	Hardware	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
4005	1.3.1.2.7.2	Assemble, install & test	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
4006	1.3.1.2.7.2	Elect inst	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
4007	1.3.1.2.7.3	Vacuum piping	LLNL		0	10 wks	\$0.00	\$20,000.00	\$21,680.00	\$41,680.00	\$25,026.40	\$13,300.68	\$80,007.08
4008	1.3.1.2.7.3	Hardware	LLNL	M&S	1	0 wks	\$0.00	\$20,000.00	\$0.00	\$20,000.00	\$3,780.00	\$3,567.00	\$27,347.00
		LLNL M&S Total		M&S	0	20,000	\$0.00	\$0.00	\$0.00	\$20,000.00	\$0.00	\$0.00	\$0.00
4009	1.3.1.2.7.3	Hardware	LLNL	ED&I	1	2 wks	\$0.00	\$0.00	\$5,040.00	\$5,040.00	\$4,939.20	\$1,496.88	\$11,476.08
		LLNL PCD:Coordinator Associate		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$5,040.00	\$0.00	\$0.00	\$0.00
4010	1.3.1.2.7.3		LLNL	B&H	2	8 wks	\$0.00	\$0.00	\$16,640.00	\$16,640.00	\$16,307.20	\$8,236.80	\$41,184.00
		LLNL Mech. Fab: Assembly Tech		B&H	0	8 wks	\$0.00	\$0.00	\$0.00	\$16,640.00	\$0.00	\$0.00	\$0.00
4011	1.3.1.2.7.4	•	LLNL	Dan,	0	16 wks	\$0.00	\$500,000.00	\$35,200.00	\$535,200.00	\$128,996.00	\$104,603.16	\$768,799.16
		lon pumps			U					. ,	. ,		
4012	1.3.1.2.7.4	Hardware	LLNL	ED&I	1	2 wks	\$0.00	\$0.00	\$5,040.00	\$5,040.00	\$4,939.20	\$1,496.88	\$11,476.08

I CI	S	CD1	TEC

ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		LLNL PCD:Coordinator Associate		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$5,040.00	\$0.00	\$0.00	\$0.0
013	1.3.1.2.7.4	Hardware	LLNL	M&S	1	0 wks	\$0.00	\$288,000.00	\$0.00	\$288,000.00	\$54,432.00	\$51,364.80	\$393,796.8
		LLNL M&S Total		M&S	0	288,000	\$0.00	\$0.00	\$0.00	\$288,000.00	\$0.00	\$0.00	\$0.0
014	1.3.1.2.7.4	Controller	LLNL	M&S	1	0 wks	\$0.00	\$212,000.00	\$0.00	\$212,000.00	\$40,068.00	\$37,810.20	\$289,878.2
\dashv		LLNL M&S Total		M&S	0	212,000	\$0.00	\$0.00	\$0.00	\$212,000.00	\$0.00	\$0.00	\$0.0
015	1.3.1.2.7.4	Controller	LLNL	ED&I	1	2 wks	\$0.00	\$0.00	\$5,040.00	\$5,040.00	\$4,939.20	\$1,496.88	\$11,476.
\dashv		LLNL PCD:Coordinator Associate		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$5,040.00	\$0.00	\$0.00	\$0.
016	1.3.1.2.7.4	Install electrical	LLNL	B&H	2	4 wks	\$0.00	\$0.00	\$8,480.00	\$8,480.00	\$8,310.40	\$4,197.60	\$20,988
-		LLNL Controls: Technician		B&H	0	4 wks	\$0.00	\$0.00	\$0.00	\$8,480.00	\$0.00	\$0.00	\$0.
)17	1.3.1.2.7.4	Install (mech) and test	LLNL	B&H	2	8 wks	\$0.00	\$0.00	\$16,640.00	\$16,640.00	\$16,307.20	\$8,236.80	\$41,184
		LLNL Mech. Fab: Assembly Tech		B&H	0	8 wks	\$0.00	\$0.00	\$0.00	\$16,640.00	\$0.00	\$0.00	\$0.
018	1.3.1.2.7.5	lon gauges	LLNL	Dan	0	8 wks	\$0.00	\$66,000.00	\$17,600.00	\$83.600.00	\$29,722.00	\$19.485.18	\$132.807.
					0		, , , , ,			,,		, ,,	, . ,
)19	1.3.1.2.7.5		LLNL	ED&I	1	1 wk		\$0.00	\$2,520.00	\$2,520.00	\$2,469.60	\$748.44	\$5,738
		LLNL PCD:Coordinator Associate		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,520.00	\$0.00	\$0.00	\$0
020	1.3.1.2.7.5	Hardware	LLNL	M&S	1	0 wks	\$0.00	\$18,000.00	\$0.00	\$18,000.00	\$3,402.00	\$3,210.30	\$24,612
		LLNL M&S Total		M&S	0	18,000	\$0.00	\$0.00	\$0.00	\$18,000.00	\$0.00	\$0.00	\$0
)21	1.3.1.2.7.5	Controller	LLNL	M&S	1	0 wks	\$0.00	\$48,000.00	\$0.00	\$48,000.00	\$9,072.00	\$8,560.80	\$65,632
		LLNL M&S Total		M&S	0	48,000	\$0.00	\$0.00	\$0.00	\$48,000.00	\$0.00	\$0.00	\$0.
022	1.3.1.2.7.5	Controller	LLNL	ED&I	1	1 wk	\$0.00	\$0.00	\$2,520.00	\$2,520.00	\$2,469.60	\$748.44	\$5,738
-		LLNL PCD:Coordinator Associate		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,520.00	\$0.00	\$0.00	\$0
023	1.3.1.2.7.5	Install electrical	LLNL	B&H	2	2 wks	\$0.00	\$0.00	\$4,240.00	\$4,240.00	\$4,155.20	\$2,098.80	\$10,494
-		LLNL Controls: Technician		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,240.00	\$0.00	\$0.00	\$0
024	1.3.1.2.7.5	Install (mech) and test	LLNL	B&H	2	4 wks	\$0.00	\$0.00	\$8,320.00	\$8,320.00	\$8,153.60	\$4,118.40	\$20,592
_		LLNL Mech. Fab: Assembly Tech		B&H	0	4 wks	\$0.00	\$0.00	\$0.00	\$8,320.00	\$0.00	\$0.00	\$0
025	1.3.1.2.7.6	Spools	LLNL	20.7	0	0.3 wks	\$0.00	\$500.00	\$668.00	\$1,168.00	\$749.14	\$369.94	\$2,287
		·			0								
26	1.3.1.2.7.6		LLNL	ED&I	1	0.1 wks	\$0.00	\$0.00	\$252.00	\$252.00	\$246.96	\$74.84	\$573
		LLNL PCD:Coordinator Associate		ED&I	0	0.1 wks	\$0.00	\$0.00	\$0.00	\$252.00	\$0.00	\$0.00	\$0
)27	1.3.1.2.7.6	Hardware	LLNL	M&S	1	0 wks	\$0.00	\$500.00	\$0.00	\$500.00	\$94.50	\$89.18	\$683
		LLNL M&S Total		M&S	0	500	\$0.00	\$0.00	\$0.00	\$500.00	\$0.00	\$0.00	\$0
028	1.3.1.2.7.6	Installation	LLNL	B&H	2	0.2 wks	\$0.00	\$0.00	\$416.00	\$416.00	\$407.68	\$205.92	\$1,029
\dashv		LLNL Mech. Fab: Assembly Tech		B&H	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$416.00	\$0.00	\$0.00	\$0
029	1.3.1.2.7.7	Turbo pumps 500l/s	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
030	1.3.1.2.7.7	Hardware	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
031	1.3.1.2.7.7	Hardware	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
032	1.3.1.2.7.7	Controller	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0

C	CD1	TEC

ID		Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
4033	1.3.1.2.7.7	Controller	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
4034	1.3.1.2.7.7	Install electrical	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
4035	1.3.1.2.7.7	Install (mech) and test	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
4036	1.3.1.2.7.8	Stands	LLNL		0	28.7 wks	\$0.00	\$123,000.00	\$61,324.00	\$184,324.00	\$83,344.52	\$66,917.13	\$334,585.65
4037	1.3.1.2.7.8	Hardware	LLNL	ED&I	2	3.7 wks	\$0.00	\$0.00	\$9,324.00	\$9,324.00	\$9,137.52	\$4,615.38	\$23,076.90
		LLNL PCD:Coordinator Associate		ED&I	0	3.7 wks	\$0.00	\$0.00	\$0.00	\$9,324.00	\$0.00	\$0.00	\$0.00
4038	1.3.1.2.7.8	Hardware	LLNL	M&S	2	0 wks	\$0.00	\$123,000.00	\$0.00	\$123,000.00	\$23,247.00	\$36,561.75	\$182,808.75
		LLNL M&S Total		M&S	0	123,000	\$0.00	\$0.00	\$0.00	\$123,000.00	\$0.00	\$0.00	\$0.00
4039	1.3.1.2.7.8	Installation	LLNL	B&H	2	25 wks	\$0.00	\$0.00	\$52,000.00	\$52,000.00	\$50,960.00	\$25,740.00	\$128,700.00
		LLNL Mech. Fab: Assembly Tech		B&H	0	25 wks	\$0.00	\$0.00	\$0.00	\$52,000.00	\$0.00	\$0.00	\$0.00
4040	1.3.1.2.8	Hutch B1			0	9.76 wks	\$0.00	\$75,000.00	\$21,307.20	\$96,307.20	\$35,056.06	\$14,408.01	\$145,771.26
4041	1.3.1.2.8.1	Isolation valve	LLNL		0	1.2 wks	\$0.00	\$7,000.00	\$2,688.00	\$9,688.00	\$3,957.24	\$2,579.01	\$16,224.25
4042	1.3.1.2.8.1	Hardware	LLNL	ED&I	2	0.4 wks	\$0.00	\$0.00	\$1,008.00	\$1,008.00	\$987.84	\$498.96	\$2,494.80
		LLNL PCD:Coordinator Associate		ED&I	0	0.4 wks	\$0.00	\$0.00	\$0.00	\$1,008.00	\$0.00	\$0.00	\$0.00
4043	1.3.1.2.8.1	Hardware	LLNL	M&S	1	0 wks	\$0.00	\$7,000.00	\$0.00	\$7,000.00	\$1,323.00	\$1,248.45	\$9,571.45
		LLNL M&S Total		M&S	0	7,000	\$0.00	\$0.00	\$0.00	\$7,000.00	\$0.00	\$0.00	\$0.00
4044	1.3.1.2.8.1	Install & test	LLNL	B&H	2	0.4 wks	\$0.00	\$0.00	\$832.00	\$832.00	\$815.36	\$411.84	\$2,059.20
		LLNL Mech. Fab: Assembly Tech		B&H	0	0.4 wks	\$0.00	\$0.00	\$0.00	\$832.00	\$0.00	\$0.00	\$0.00
4045	1.3.1.2.8.1	Elect inst	LLNL	B&H	2	0.4 wks	\$0.00	\$0.00	\$848.00	\$848.00	\$831.04	\$419.76	\$2,098.80
		LLNL Controls: Technician		B&H	0	0.4 wks	\$0.00	\$0.00	\$0.00	\$848.00	\$0.00	\$0.00	\$0.00
4046	1.3.1.2.8.2	Isolation valve-Be	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
4047	1.3.1.2.8.2	Hardware	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
4048	1.3.1.2.8.2	Hardware	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
4049	1.3.1.2.8.2	Assemble, install & test	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
4050	1.3.1.2.8.2	Elect inst	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
4051	1.3.1.2.8.3	Vacuum piping	LLNL		0	0.75 wks	\$0.00	\$2,000.00	\$1,626.00	\$3,626.00	\$1,971.48	\$1,086.73	\$6.684.21
4052	1.3.1.2.8.3	Hardware	LLNL	M&S	1	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$378.00	\$356.70	\$2,734.70
		LLNL M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.00
4053	1.3.1.2.8.3	Hardware	LLNL	ED&I	1	0.15 wks	\$0.00	\$0.00	\$378.00	\$378.00	\$370.44	\$112.27	\$860.71
	110.112.010	LLNL PCD:Coordinator Associate		ED&I	0	0.15 wks	\$0.00	\$0.00	\$0.00	\$378.00	\$0.00	\$0.00	\$0.00
4054	1.3.1.2.8.3	Install & test	LLNL	B&H	2	0.6 wks	\$0.00	\$0.00	\$1,248.00	\$1,248.00	\$1,223.04	\$617.76	\$3,088.80
+004	1.3.1.2.0.3	ınstali & test LLNL Mech. Fab: Assembly Tech	LLINL	B&H	2	0.6 wks	\$0.00	\$0.00	\$1,248.00	\$1,248.00	\$1,223.04	\$0.00	\$3,088.80
4055	121201		LLNL	В₩П	0								
	1.3.1.2.8.4	lon pumps			U	1.2 wks	\$0.00	\$38,000.00	\$2,640.00	\$40,640.00	\$9,769.20	\$7,934.41	\$58,343.61
4056	1.3.1.2.8.4	Hardware	LLNL	ED&I	1	0.15 wks	\$0.00	\$0.00	\$378.00	\$378.00	\$370.44	\$112.27	\$860.71
		LLNL PCD:Coordinator Associate		ED&I	0	0.15 wks	\$0.00	\$0.00	\$0.00	\$378.00	\$0.00	\$0.00	\$0.00

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ID		Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
057	1.3.1.2.8.4	Hardware	LLNL	M&S	1	0 wks	\$0.00	\$22,000.00	\$0.00	\$22,000.00	\$4,158.00	\$3,923.70	\$30,081.
		LLNL M&S Total		M&S	0	22,000	\$0.00	\$0.00	\$0.00	\$22,000.00	\$0.00	\$0.00	\$0.
058	1.3.1.2.8.4	Controller	LLNL	M&S	1	0 wks	\$0.00	\$16,000.00	\$0.00	\$16,000.00	\$3,024.00	\$2,853.60	\$21,877.
		LLNL M&S Total		M&S	0	16,000	\$0.00	\$0.00	\$0.00	\$16,000.00	\$0.00	\$0.00	\$0.
)59	1.3.1.2.8.4	Controller	LLNL	ED&I	1	0.15 wks	\$0.00	\$0.00	\$378.00	\$378.00	\$370.44	\$112.27	\$860
\dashv		LLNL PCD:Coordinator Associate		ED&I	0	0.15 wks	\$0.00	\$0.00	\$0.00	\$378.00	\$0.00	\$0.00	\$0
60	1.3.1.2.8.4	Install electrical	LLNL	B&H	2	0.3 wks	\$0.00	\$0.00	\$636.00	\$636.00	\$623.28	\$314.82	\$1,574
-		LLNL Controls: Technician		B&H	0	0.3 wks	\$0.00	\$0.00	\$0.00	\$636.00	\$0.00	\$0.00	\$0
61	1.3.1.2.8.4	Install (mech) and test	LLNL	B&H	2	0.6 wks	\$0.00	\$0.00	\$1,248.00	\$1,248.00	\$1,223.04	\$617.76	\$3,088
_		LLNL Mech. Fab: Assembly Tech		B&H	0	0.6 wks	\$0.00	\$0.00	\$0.00	\$1,248.00	\$0.00	\$0.00	\$0
062	1.3.1.2.8.5	lon gauges	LLNL		0	0.61 wks	\$0.00	\$5,000.00	\$1,345.20	\$6,345.20	\$2,263.30	\$1,477.79	\$10,086
63	1.3.1.2.8.5	Hardware	LLNL	ED&I	1	0.08 wks	\$0.00	\$0.00	\$201.60	\$201.60	\$197.57	\$59.88	\$459
_		LLNL PCD:Coordinator Associate		ED&I	0	0.08 wks	\$0.00	\$0.00	\$0.00	\$201.60	\$0.00	\$0.00	\$0
64	1.3.1.2.8.5		LLNL	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$189.00	\$178.35	\$1,367
		LLNL M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0
0.5	101005		LLNL	M&S	0								
65	1.3.1.2.8.5		LLINL		1	0 wks	\$0.00	\$4,000.00	\$0.00	\$4,000.00	\$756.00	\$713.40	\$5,46
		LLNL M&S Total		M&S	0	4,000	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$0
66	1.3.1.2.8.5		LLNL	ED&I	1	0.08 wks	\$0.00	\$0.00	\$201.60	\$201.60	\$197.57	\$59.88	\$45
		LLNL PCD:Coordinator Associate		ED&I	0	0.08 wks	\$0.00	\$0.00	\$0.00	\$201.60	\$0.00	\$0.00	\$0
67	1.3.1.2.8.5	Install electrical	LLNL	B&H	2	0.15 wks	\$0.00	\$0.00	\$318.00	\$318.00	\$311.64	\$157.41	\$78
		LLNL Controls: Technician		B&H	0	0.15 wks	\$0.00	\$0.00	\$0.00	\$318.00	\$0.00	\$0.00	\$
68	1.3.1.2.8.5	Install (mech) and test	LLNL	B&H	2	0.3 wks	\$0.00	\$0.00	\$624.00	\$624.00	\$611.52	\$308.88	\$1,54
_		LLNL Mech. Fab: Assembly Tech		B&H	0	0.3 wks	\$0.00	\$0.00	\$0.00	\$624.00	\$0.00	\$0.00	\$0
69	1.3.1.2.8.6	Spools	LLNL		0	1 wk	\$0.00	\$2,000.00	\$2,168.00	\$4,168.00	\$2,502.64	\$1,330.07	\$8,000
70	1.3.1.2.8.6	Hardware	LLNL	ED&I	1	0.2 wks	\$0.00	\$0.00	\$504.00	\$504.00	\$493.92	\$149.69	\$1,14
_		LLNL PCD:Coordinator Associate		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$504.00	\$0.00	\$0.00	\$6
71	1.3.1.2.8.6	Hardware	LLNL	M&S	1	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$378.00	\$356.70	\$2,73
_		LLNL M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$6
72	1.3.1.2.8.6	Installation	LLNL	B&H	2	0.8 wks	\$0.00	\$0.00	\$1,664.00	\$1,664.00	\$1,630.72	\$823.68	\$4,11
_		LLNL Mech. Fab: Assembly Tech		B&H	0	0.8 wks	\$0.00	\$0.00	\$0.00	\$1,664.00	\$0.00	\$0.00	\$
73	1.3.1.2.8.7	Turbo pumps 500l/s	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	S
74	1.3.1.2.8.7		LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$
75	1.3.1.2.8.7		LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$
76	1.3.1.2.8.7		LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$
)77	1.3.1.2.8.7	Controller	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0

LCLS_CD1_TEC

ID		Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
078	1.3.1.2.8.7	Install electrical	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
079	1.3.1.2.8.7	Install (mech) and test	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
080	1.3.1.2.8.8	Stands	LLNL		0	5 wks	\$0.00	\$21,000.00	\$10,840.00	\$31,840.00	\$14,592.20	\$0.00	\$46,432.
081	1.3.1.2.8.8	Hardware	LLNL	ED&I	0	1 wk	\$0.00	\$0.00	\$2,520.00	\$2,520.00	\$2,469.60	\$0.00	\$4,989
		LLNL PCD:Coordinator Associate		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,520.00	\$0.00	\$0.00	\$0.
082	1.3.1.2.8.8	Hardware	LLNL	M&S	0	0 wks	\$0.00	\$21,000.00	\$0.00	\$21,000.00	\$3,969.00	\$0.00	\$24,969
		LLNL M&S Total		M&S	0	21,000	\$0.00	\$0.00	\$0.00	\$21,000.00	\$0.00	\$0.00	\$0
083	1.3.1.2.8.8	Installation	LLNL	B&H	0	4 wks	\$0.00	\$0.00	\$8,320.00	\$8,320.00	\$8,153.60	\$0.00	\$16,473
		LLNL Mech. Fab: Assembly Tech		B&H	0	4 wks	\$0.00	\$0.00	\$0.00	\$8,320.00	\$0.00	\$0.00	\$0
084	1.3.1.2.9	Hutch B2			0	6.16 wks	\$0.00	\$64,000.00	\$13,335.20	\$77,335.20	\$25,164.50	\$18,631.37	\$121,131
085	1.3.1.2.9.1	Isolation valve	LLNL		0	0.3 wks	\$0.00	\$2,000.00	\$672.00	\$2,672.00	\$1,036.56	\$689.34	\$4,397
086	1.3.1.2.9.1	Hardware	LLNL	ED&I	2	0.1 wks	\$0.00	\$0.00	\$252.00	\$252.00	\$246.96	\$124.74	\$623
	1.0.1.2.0.1	LLNL PCD:Coordinator Associate		ED&I	0	0.1 wks	\$0.00	\$0.00	\$0.00	\$252.00	\$0.00	\$0.00	\$020
087	1.3.1.2.9.1	Hardware	LLNL	M&S	1	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$378.00	\$356.70	\$2,734
J6 <i>1</i>	1.3.1.2.9.1		LLINL		<u> </u>		,,,,,,		****				
		LLNL M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0
88(1.3.1.2.9.1	Install & test	LLNL	B&H	2	0.1 wks	\$0.00	\$0.00	\$208.00	\$208.00	\$203.84	\$102.96	\$51
		LLNL Mech. Fab: Assembly Tech		B&H	0	0.1 wks	\$0.00	\$0.00	\$0.00	\$208.00	\$0.00	\$0.00	\$0
089	1.3.1.2.9.1	Elect inst	LLNL	B&H	2	0.1 wks	\$0.00	\$0.00	\$212.00	\$212.00	\$207.76	\$104.94	\$52
		LLNL Controls: Technician		B&H	0	0.1 wks	\$0.00	\$0.00	\$0.00	\$212.00	\$0.00	\$0.00	\$0
090	1.3.1.2.9.2	Isolation valve-Be	LLNL		0	1.2 wks	\$0.00	\$8,000.00	\$2,640.00	\$10,640.00	\$4,099.20	\$2,583.91	\$17,323
091	1.3.1.2.9.2	Hardware	LLNL	M&S	1	0 wks	\$0.00	\$8,000.00	\$0.00	\$8,000.00	\$1,512.00	\$1,426.80	\$10,938
		LLNL M&S Total		M&S	0	8,000	\$0.00	\$0.00	\$0.00	\$8,000.00	\$0.00	\$0.00	\$0
092	1.3.1.2.9.2	Hardware	LLNL	ED&I	1	0.3 wks	\$0.00	\$0.00	\$756.00	\$756.00	\$740.88	\$224.53	\$1,72
		LLNL PCD:Coordinator Associate		ED&I	0	0.3 wks	\$0.00	\$0.00	\$0.00	\$756.00	\$0.00	\$0.00	\$0
093	1.3.1.2.9.2	Assemble, install & test	LLNL	B&H	2	0.6 wks	\$0.00	\$0.00	\$1,248.00	\$1,248.00	\$1,223.04	\$617.76	\$3,088
		LLNL Mech. Fab: Assembly Tech		B&H	0	0.6 wks	\$0.00	\$0.00	\$0.00	\$1,248.00	\$0.00	\$0.00	\$0
094	1.3.1.2.9.2		LLNL	B&H	2	0.3 wks	\$0.00	\$0.00	\$636.00	\$636.00	\$623.28	\$314.82	\$1,574
		LLNL Controls: Technician		B&H	0	0.3 wks	\$0.00	\$0.00	\$0.00	\$636.00	\$0.00	\$0.00	\$0
095	1.3.1.2.9.3	Vacuum piping	LLNL		0	0.75 wks	\$0.00	\$2,000.00	\$1,626.00	\$3,626.00	\$1,971.48	\$1,086.73	\$6,684
096	1.3.1.2.9.3		LLNL	M&S		0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$378.00	\$356.70	\$2,734
J96	1.3.1.2.9.3		LLINL		'								
		LLNL M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0
097	1.3.1.2.9.3		LLNL	ED&I	1	0.15 wks	\$0.00	\$0.00	\$378.00	\$378.00	\$370.44	\$112.27	\$86
		LLNL PCD:Coordinator Associate		ED&I	0	0.15 wks	\$0.00	\$0.00	\$0.00	\$378.00	\$0.00	\$0.00	\$6
098	1.3.1.2.9.3	Install & test	LLNL	B&H	2	0.6 wks	\$0.00	\$0.00	\$1,248.00	\$1,248.00	\$1,223.04	\$617.76	\$3,088
		LLNL Mech. Fab: Assembly Tech		B&H	0	0.6 wks	\$0.00	\$0.00	\$0.00	\$1,248.00	\$0.00	\$0.00	\$0

LCLS_CD1_TEC

ID 4099	CWBS 1.3.1.2.9.4	Task Name	OBS LLNL	PHASE	Risk	Units 1.2 wks	PED (Direct)	M&S (Direct) \$38,000.00	Labor (Direct) \$2,640.00	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		lon pumps			0		\$0.00			\$40,640.00	\$9,769.20	\$7,934.41	\$58,343.6
1100	1.3.1.2.9.4	Hardware	LLNL	ED&I	1	0.15 wks	\$0.00	\$0.00	\$378.00	\$378.00	\$370.44	\$112.27	\$860.
		LLNL PCD:Coordinator Associate		ED&I	0	0.15 wks	\$0.00	\$0.00	\$0.00	\$378.00	\$0.00	\$0.00	\$0.
1101	1.3.1.2.9.4	Hardware	LLNL	M&S	1	0 wks	\$0.00	\$22,000.00	\$0.00	\$22,000.00	\$4,158.00	\$3,923.70	\$30,081.
		LLNL M&S Total		M&S	0	22,000	\$0.00	\$0.00	\$0.00	\$22,000.00	\$0.00	\$0.00	\$0.
1102	1.3.1.2.9.4	Controller	LLNL	M&S	1	0 wks	\$0.00	\$16,000.00	\$0.00	\$16,000.00	\$3,024.00	\$2,853.60	\$21,877
		LLNL M&S Total		M&S	0	16,000	\$0.00	\$0.00	\$0.00	\$16,000.00	\$0.00	\$0.00	\$0.
4103	1.3.1.2.9.4	Controller	LLNL	ED&I	1	0.15 wks	\$0.00	\$0.00	\$378.00	\$378.00	\$370.44	\$112.27	\$860
		LLNL PCD:Coordinator Associate		ED&I	0	0.15 wks	\$0.00	\$0.00	\$0.00	\$378.00	\$0.00	\$0.00	\$0
4104	1.3.1.2.9.4	Install electrical	LLNL	B&H	2	0.3 wks	\$0.00	\$0.00	\$636.00	\$636.00	\$623.28	\$314.82	\$1,574
		LLNL Controls: Technician		В&Н	0	0.3 wks	\$0.00	\$0.00	\$0.00	\$636.00	\$0.00	\$0.00	\$0.
4105	1.3.1.2.9.4	Install (mech) and test	LLNL	B&H	2	0.6 wks	\$0.00	\$0.00	\$1,248.00	\$1,248.00	\$1,223.04	\$617.76	\$3,088
		LLNL Mech. Fab: Assembly Tech		B&H	0	0.6 wks	\$0.00	\$0.00	\$0.00	\$1,248.00	\$0.00	\$0.00	\$0.
4106	1.3.1.2.9.5	·	LLNL		0	0.61 wks	\$0.00	\$5,000.00	\$1,345.20	\$6,345.20	\$2,263.30	\$1,477.79	\$10,086
1107	1.3.1.2.9.5		LLNL	ED&I	1	0.08 wks	\$0.00	\$0.00	\$201.60	\$201.60	\$197.57	\$59.88	\$459
+107	1.3.1.2.9.3		LLINE	ED&I			\$0.00	\$0.00	\$0.00	\$201.60			\$458
		LLNL PCD:Coordinator Associate			0	0.08 wks		·			\$0.00	\$0.00	
1108	1.3.1.2.9.5		LLNL	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$189.00	\$178.35	\$1,367
		LLNL M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0
4109	1.3.1.2.9.5	Controller	LLNL	M&S	1	0 wks	\$0.00	\$4,000.00	\$0.00	\$4,000.00	\$756.00	\$713.40	\$5,469
		LLNL M&S Total		M&S	0	4,000	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$0
4110	1.3.1.2.9.5	Controller	LLNL	ED&I	1	0.08 wks	\$0.00	\$0.00	\$201.60	\$201.60	\$197.57	\$59.88	\$459
		LLNL PCD:Coordinator Associate		ED&I	0	0.08 wks	\$0.00	\$0.00	\$0.00	\$201.60	\$0.00	\$0.00	\$0
4111	1.3.1.2.9.5	Install electrical	LLNL	В&Н	2	0.15 wks	\$0.00	\$0.00	\$318.00	\$318.00	\$311.64	\$157.41	\$787
		LLNL Controls: Technician		B&H	0	0.15 wks	\$0.00	\$0.00	\$0.00	\$318.00	\$0.00	\$0.00	\$0
4112	1.3.1.2.9.5	Install (mech) and test	LLNL	B&H	2	0.3 wks	\$0.00	\$0.00	\$624.00	\$624.00	\$611.52	\$308.88	\$1,544
		LLNL Mech. Fab: Assembly Tech		B&H	0	0.3 wks	\$0.00	\$0.00	\$0.00	\$624.00	\$0.00	\$0.00	\$0
1113	1.3.1.2.9.6	Spools	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
1114	1.3.1.2.9.6	Hardware	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
1115	1.3.1.2.9.6	Hardware	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
4116	1.3.1.2.9.6	Installation	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
4117	1.3.1.2.9.7	Turbo pumps 500l/s	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
4118	1.3.1.2.9.7	Hardware	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
4119	1.3.1.2.9.7	Hardware	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
4120	1.3.1.2.9.7	Controller	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
4121	1.3.1.2.9.7	Controller	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0

I CI	S	CD1	TEC

ID		Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
1122	1.3.1.2.9.7	Install electrical	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
123	1.3.1.2.9.7	Install (mech) and test	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
124	1.3.1.2.9.8	Stands	LLNL		0	2.1 wks	\$0.00	\$9,000.00	\$4,412.00	\$13,412.00	\$6,024.76	\$4,859.19	\$24,295.
125	1.3.1.2.9.8	Hardware	LLNL	ED&I	2	0.1 wks	\$0.00	\$0.00	\$252.00	\$252.00	\$246.96	\$124.74	\$623.
		LLNL PCD:Coordinator Associate		ED&I	0	0.1 wks	\$0.00	\$0.00	\$0.00	\$252.00	\$0.00	\$0.00	\$0.
126	1.3.1.2.9.8	Hardware	LLNL	M&S	2	0 wks	\$0.00	\$9,000.00	\$0.00	\$9,000.00	\$1,701.00	\$2,675.25	\$13,376
		LLNL M&S Total		M&S	0	9,000	\$0.00	\$0.00	\$0.00	\$9,000.00	\$0.00	\$0.00	\$0
127	1.3.1.2.9.8	Installation	LLNL	B&H	2	2 wks	\$0.00	\$0.00	\$4,160.00	\$4,160.00	\$4,076.80	\$2,059.20	\$10,296
		LLNL Mech. Fab: Assembly Tech		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,160.00	\$0.00	\$0.00	\$0
128	1.3.1.2.10	Hutch B3 Totals			0	19.51 wks	\$0.00	\$54,000.00	\$47,445.20	\$101,445.20	\$56,702.30	\$26,463.15	\$184,610
129	1.3.1.2.10.1	Isolation valve	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
130	1.3.1.2.10.1	Hardware	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
131	1.3.1.2.10.1	Hardware	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
132	1.3.1.2.10.1	Install & test	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
133	1.3.1.2.10.1	Elect inst	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
134	1.3.1.2.10.2	Isolation valve-Be	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
135	1.3.1.2.10.2	Hardware	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$(
136	1.3.1.2.10.2	Hardware	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
137	1.3.1.2.10.2	Assemble, install & test	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
138	1.3.1.2.10.2	Elect inst	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
139	1.3.1.2.10.3	Vacuum piping	LLNL		0	15.6 wks	\$0.00	\$2,000.00	\$39,048.00	\$41,048.00	\$38,645.04	\$12,191.76	\$91,884
140	1.3.1.2.10.3		LLNL	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$378.00	\$594.50	\$2,972
		LLNL M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0
141	1.3.1.2.10.3		LLNL	ED&I	1	15 wks	\$0.00	\$0.00	\$37,800.00	\$37,800.00	\$37,044.00	\$11,226.60	\$86,070
		LLNL PCD:Coordinator Associate		ED&I	0	15 wks	\$0.00	\$0.00	\$0.00	\$37,800.00	\$0.00	\$0.00	\$0
1/12	1.3.1.2.10.3		LLNL	B&H	1	0.6 wks	\$0.00	\$0.00	\$1,248.00	\$1,248.00	\$1,223.04	\$370.66	\$2,841
142	1.5.1.2.10.5	LLNL Mech. Fab: Assembly Tech	LUNE	B&H	0	0.6 wks	\$0.00	\$0.00	\$0.00	\$1,248.00	\$0.00	\$0.00	\$2,041
143	1.3.1.2.10.4	lon pumps	LLNL	Darr	0	1.2 wks	\$0.00	\$38,000.00	\$2,640.00	\$40,640.00	\$9,769.20	\$7,934.41	\$58,343
144	1.3.1.2.10.4	· ·	LLNL	ED&I	0	0.15 wks	\$0.00	\$30,000.00	\$378.00	\$378.00	\$370.44	\$112.27	\$860
144	1.3.1.2.10.4		LLINL		'								
		LLNL PCD:Coordinator Associate		ED&I	0	0.15 wks	\$0.00	\$0.00	\$0.00	\$378.00	\$0.00	\$0.00	\$0
145	1.3.1.2.10.4		LLNL	M&S	1	0 wks	\$0.00	\$22,000.00	\$0.00	\$22,000.00	\$4,158.00	\$3,923.70	\$30,08
		LLNL M&S Total		M&S	0	22,000	\$0.00	\$0.00	\$0.00	\$22,000.00	\$0.00	\$0.00	\$0
146	1.3.1.2.10.4		LLNL	M&S	1	0 wks	\$0.00	\$16,000.00	\$0.00	\$16,000.00	\$3,024.00	\$2,853.60	\$21,87
		LLNL M&S Total		M&S	0	16,000	\$0.00	\$0.00	\$0.00	\$16,000.00	\$0.00	\$0.00	\$0
147	1.3.1.2.10.4	Controller	LLNL	ED&I	1	0.15 wks	\$0.00	\$0.00	\$378.00	\$378.00	\$370.44	\$112.27	\$860

ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		LLNL PCD:Coordinator Associate		ED&I	0	0.15 wks	\$0.00	\$0.00	\$0.00	\$378.00	\$0.00	\$0.00	\$0.0
148	1.3.1.2.10.4	Install electrical	LLNL	B&H	2	0.3 wks	\$0.00	\$0.00	\$636.00	\$636.00	\$623.28	\$314.82	\$1,574.
		LLNL Controls: Technician		B&H	0	0.3 wks	\$0.00	\$0.00	\$0.00	\$636.00	\$0.00	\$0.00	\$0.0
149	1.3.1.2.10.4	Install (mech) and test	LLNL	B&H	2	0.6 wks	\$0.00	\$0.00	\$1,248.00	\$1,248.00	\$1,223.04	\$617.76	\$3,088.
		LLNL Mech. Fab: Assembly Tech		B&H	0	0.6 wks	\$0.00	\$0.00	\$0.00	\$1,248.00	\$0.00	\$0.00	\$0.
150	1.3.1.2.10.5	lon gauges	LLNL		0	0.61 wks	\$0.00	\$5,000.00	\$1,345.20	\$6,345.20	\$2,263.30	\$1,477.79	\$10,086.
151	1.3.1.2.10.5	Hardware	LLNL	ED&I	1	0.08 wks	\$0.00	\$0.00	\$201.60	\$201.60	\$197.57	\$59.88	\$459
		LLNL PCD:Coordinator Associate		ED&I	0	0.08 wks	\$0.00	\$0.00	\$0.00	\$201.60	\$0.00	\$0.00	\$0
152	1.3.1.2.10.5	Hardware	LLNL	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$189.00	\$178.35	\$1,367
		LLNL M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0
153	1.3.1.2.10.5	Controller	LLNL	M&S	1	0 wks	\$0.00	\$4,000.00	\$0.00	\$4,000.00	\$756.00	\$713.40	\$5,469
		LLNL M&S Total		M&S	0	4,000	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$0
154	1.3.1.2.10.5	Controller	LLNL	ED&I	1	0.08 wks	\$0.00	\$0.00	\$201.60	\$201.60	\$197.57	\$59.88	\$459
		LLNL PCD:Coordinator Associate		ED&I	0	0.08 wks	\$0.00	\$0.00	\$0.00	\$201.60	\$0.00	\$0.00	\$0
155	1.3.1.2.10.5	Install electrical	LLNL	B&H	2	0.15 wks	\$0.00	\$0.00	\$318.00	\$318.00	\$311.64	\$157.41	\$787
		LLNL Controls: Technician		B&H	0	0.15 wks	\$0.00	\$0.00	\$0.00	\$318.00	\$0.00	\$0.00	\$0
156	1.3.1.2.10.5	Install (mech) and test	LLNL	B&H	2	0.3 wks	\$0.00	\$0.00	\$624.00	\$624.00	\$611.52	\$308.88	\$1,54
		LLNL Mech. Fab: Assembly Tech		B&H	0	0.3 wks	\$0.00	\$0.00	\$0.00	\$624.00	\$0.00	\$0.00	\$0
157	1.3.1.2.10.6	Spools	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
158	1.3.1.2.10.6	Hardware	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
159	1.3.1.2.10.6	Hardware	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
160	1.3.1.2.10.6	Installation	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
161	1.3.1.2.10.7	Turbo pumps 500l/s	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
162	1.3.1.2.10.7	Hardware	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
163	1.3.1.2.10.7	Hardware	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
64	1.3.1.2.10.7	Controller	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
165	1.3.1.2.10.7		LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
166	1.3.1.2.10.7		LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
167	1.3.1.2.10.7		LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
168	1.3.1.2.10.8	Stands	LLNL		0	2.1 wks	\$0.00	\$9,000.00	\$4,412.00	\$13,412.00	\$6,024.76	\$4,859.19	\$24,295
169	1.3.1.2.10.8		LLNL	ED&I	2	0.1 wks	\$0.00	\$0.00	\$252.00	\$252.00	\$246.96	\$124.74	\$623
.03	1.3.1.2.10.0	nationale LLNL PCD:Coordinator Associate	LLINL	ED&I	0	0.1 wks	\$0.00	\$0.00	\$0.00	\$252.00	\$0.00	\$0.00	\$023
170	1.3.1.2.10.8		LLNL	M&S		0. 7 wks	\$0.00	\$9,000.00	\$0.00	\$9,000.00	\$1,701.00	\$2,675.25	\$13,376
170	1.3.1.2.10.8		LLINL		2		,,,,,,						
		LLNL M&S Total		M&S	0	9,000	\$0.00	\$0.00	\$0.00	\$9,000.00	\$0.00	\$0.00	\$0
171	1.3.1.2.10.8	Installation	LLNL	B&H	2	2 wks	\$0.00	\$0.00	\$4,160.00	\$4,160.00	\$4,076.80	\$2,059.20	\$10,296

I CI	S	CD1	TEC

ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		LLNL Mech. Fab: Assembly Tech		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,160.00	\$0.00	\$0.00	\$0.0
172	1.3.1.2.11	Hutch B4 totals			0	6.56 wks	\$0.00	\$63,000.00	\$14,471.20	\$77,471.20	\$26,088.78	\$19,471.83	\$123,031.8
173	1.3.1.2.11.1	Isolation valve	LLNL		0	0.9 wks	\$0.00	\$5,000.00	\$2,016.00	\$7,016.00	\$2,920.68	\$1,889.67	\$11,826.
174	1.3.1.2.11.1	Hardware	LLNL	ED&I	2	0.3 wks	\$0.00	\$0.00	\$756.00	\$756.00	\$740.88	\$374.22	\$1,871.
		LLNL PCD:Coordinator Associate		ED&I	0	0.3 wks	\$0.00	\$0.00	\$0.00	\$756.00	\$0.00	\$0.00	\$0.
175	1.3.1.2.11.1	Hardware	LLNL	M&S	1	0 wks	\$0.00	\$5,000.00	\$0.00	\$5,000.00	\$945.00	\$891.75	\$6,836
		LLNL M&S Total		M&S	0	5,000	\$0.00	\$0.00	\$0.00	\$5,000.00	\$0.00	\$0.00	\$0.
176	1.3.1.2.11.1	Install & test	LLNL	B&H	2	0.3 wks	\$0.00	\$0.00	\$624.00	\$624.00	\$611.52	\$308.88	\$1,544
		LLNL Mech. Fab: Assembly Tech		B&H	0	0.3 wks	\$0.00	\$0.00	\$0.00	\$624.00	\$0.00	\$0.00	\$0
177	1.3.1.2.11.1	Elect inst	LLNL	B&H	2	0.3 wks	\$0.00	\$0.00	\$636.00	\$636.00	\$623.28	\$314.82	\$1,574
		LLNL Controls: Technician		B&H	0	0.3 wks	\$0.00	\$0.00	\$0.00	\$636.00	\$0.00	\$0.00	\$0
178	1.3.1.2.11.2	Isolation valve-Be	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
179	1.3.1.2.11.2	Hardware	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
180	1.3.1.2.11.2	Hardware	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
181	1.3.1.2.11.2	Assemble, install & test	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
182	1.3.1.2.11.2	Elect inst	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
183	1.3.1.2.11.3	Vacuum piping	LLNL		0	0.75 wks	\$0.00	\$2,000.00	\$1,626.00	\$3,626.00	\$1,971.48	\$1,086.73	\$6,684
184	1.3.1.2.11.3	Hardware	LLNL	M&S	1	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$378.00	\$356.70	\$2,734
		LLNL M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0
185	1.3.1.2.11.3	Hardware	LLNL	ED&I	1	0.15 wks	\$0.00	\$0.00	\$378.00	\$378.00	\$370.44	\$112.27	\$860
		LLNL PCD:Coordinator Associate		ED&I	0	0.15 wks	\$0.00	\$0.00	\$0.00	\$378.00	\$0.00	\$0.00	\$0
186	1.3.1.2.11.3	Install & test	LLNL	B&H	2	0.6 wks	\$0.00	\$0.00	\$1,248.00	\$1,248.00	\$1,223.04	\$617.76	\$3,088
		LLNL Mech. Fab: Assembly Tech		B&H	0	0.6 wks	\$0.00	\$0.00	\$0.00	\$1,248.00	\$0.00	\$0.00	\$0
187	1.3.1.2.11.4		LLNL		0	1.2 wks	\$0.00	\$38,000.00	\$2.640.00	\$40,640.00	\$9,769.20	\$7.934.41	\$58,343
188	1.3.1.2.11.4		LLNL	ED&I	1	0.15 wks	\$0.00	\$0.00	\$378.00	\$378.00	\$370.44	\$112.27	\$860
100	1.3.1.2.11.4	LLNL PCD:Coordinator Associate	LLINE	ED&I	0	0.15 wks	\$0.00	\$0.00	\$0.00	\$378.00	\$0.00	\$0.00	\$000
189	1.3.1.2.11.4		LLNL	M&S		0.75 WAS	\$0.00	\$22,000.00	\$0.00	\$22,000.00	\$4,158.00	\$3,923.70	\$30,081
189	1.3.1.2.11.4	Hardware LLNL M&S Total	LLNL		1				\$0.00			\$3,923.70	
				M&S	0	22,000	\$0.00	\$0.00	,,,,,,	\$22,000.00	\$0.00	, , , ,	\$0
190	1.3.1.2.11.4		LLNL	M&S	1	0 wks	\$0.00	\$16,000.00	\$0.00	\$16,000.00	\$3,024.00	\$2,853.60	\$21,877
		LLNL M&S Total		M&S	0	16,000	\$0.00	\$0.00	\$0.00	\$16,000.00	\$0.00	\$0.00	\$0
191	1.3.1.2.11.4		LLNL	ED&I	1	0.15 wks	\$0.00	\$0.00	\$378.00	\$378.00	\$370.44	\$112.27	\$860
		LLNL PCD:Coordinator Associate		ED&I	0	0.15 wks	\$0.00	\$0.00	\$0.00	\$378.00	\$0.00	\$0.00	\$0
192	1.3.1.2.11.4	Install electrical	LLNL	B&H	2	0.3 wks	\$0.00	\$0.00	\$636.00	\$636.00	\$623.28	\$314.82	\$1,574
		LLNL Controls: Technician		B&H	0	0.3 wks	\$0.00	\$0.00	\$0.00	\$636.00	\$0.00	\$0.00	\$0
193	1.3.1.2.11.4	Install (mech) and test	LLNL	B&H	2	0.6 wks	\$0.00	\$0.00	\$1,248.00	\$1,248.00	\$1,223.04	\$617.76	\$3,088

ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		LLNL Mech. Fab: Assembly Tech		B&H	0	0.6 wks	\$0.00	\$0.00	\$0.00	\$1,248.00	\$0.00	\$0.00	\$0.0
194	1.3.1.2.11.5	Ion gauges	LLNL		0	0.61 wks	\$0.00	\$5,000.00	\$1,345.20	\$6,345.20	\$2,263.30	\$1,477.79	\$10,086.2
195	1.3.1.2.11.5	Hardware	LLNL	ED&I	1	0.08 wks	\$0.00	\$0.00	\$201.60	\$201.60	\$197.57	\$59.88	\$459.
		LLNL PCD:Coordinator Associate		ED&I	0	0.08 wks	\$0.00	\$0.00	\$0.00	\$201.60	\$0.00	\$0.00	\$0.
196	1.3.1.2.11.5	Hardware	LLNL	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$189.00	\$178.35	\$1,367.
		LLNL M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.
197	1.3.1.2.11.5	Controller	LLNL	M&S	1	0 wks	\$0.00	\$4,000.00	\$0.00	\$4,000.00	\$756.00	\$713.40	\$5,469
		LLNL M&S Total		M&S	0	4,000	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$0
198	1.3.1.2.11.5	Controller	LLNL	ED&I	1	0.08 wks	\$0.00	\$0.00	\$201.60	\$201.60	\$197.57	\$59.88	\$459
		LLNL PCD:Coordinator Associate		ED&I	0	0.08 wks	\$0.00	\$0.00	\$0.00	\$201.60	\$0.00	\$0.00	\$0
199	1.3.1.2.11.5	Install electrical	LLNL	B&H	2	0.15 wks	\$0.00	\$0.00	\$318.00	\$318.00	\$311.64	\$157.41	\$787
		LLNL Controls: Technician		B&H	0	0.15 wks	\$0.00	\$0.00	\$0.00	\$318.00	\$0.00	\$0.00	\$0
200	1.3.1.2.11.5	Install (mech) and test	LLNL	B&H	2	0.3 wks	\$0.00	\$0.00	\$624.00	\$624.00	\$611.52	\$308.88	\$1,544
		LLNL Mech. Fab: Assembly Tech		B&H	0	0.3 wks	\$0.00	\$0.00	\$0.00	\$624.00	\$0.00	\$0.00	\$0
201	1.3.1.2.11.6	Spools	LLNL		0	0.3 wks	\$0.00	\$1,000.00	\$668.00	\$1,668.00	\$843.64	\$459.11	\$2,970
202	1.3.1.2.11.6	Hardware	LLNL	ED&I	1	0.1 wks	\$0.00	\$0.00	\$252.00	\$252.00	\$246.96	\$74.84	\$573
		LLNL PCD:Coordinator Associate		ED&I	0	0.1 wks	\$0.00	\$0.00	\$0.00	\$252.00	\$0.00	\$0.00	\$0
203	1.3.1.2.11.6		LLNL	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$189.00	\$178.35	\$1,367
		LLNL M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0
204	1.3.1.2.11.6		LLNL	B&H	2	0.2 wks	\$0.00	\$0.00	\$416.00	\$416.00	\$407.68	\$205.92	\$1,029
204	1.3.1.2.11.0		LLINE	B&H	0	0.2 wks	\$0.00	\$0.00	\$0.00		\$0.00	\$0.00	
005	1010117	LLNL Mech. Fab: Assembly Tech		Б&П						\$416.00			\$0
205	1.3.1.2.11.7	Turbo pumps 500l/s	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
206	1.3.1.2.11.7	Hardware	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
207	1.3.1.2.11.7	Hardware	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
208	1.3.1.2.11.7	Controller	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
209	1.3.1.2.11.7	Controller	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
210	1.3.1.2.11.7	Install electrical	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
211	1.3.1.2.11.7	Install (mech) and test	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
212	1.3.1.2.11.8	Stands	LLNL		0	2.8 wks	\$0.00	\$12,000.00	\$6,176.00	\$18,176.00	\$8,320.48	\$6,624.12	\$33,120
213	1.3.1.2.11.8	Hardware	LLNL	ED&I	2	0.8 wks	\$0.00	\$0.00	\$2,016.00	\$2,016.00	\$1,975.68	\$997.92	\$4,989
		LLNL PCD:Coordinator Associate		ED&I	0	0.8 wks	\$0.00	\$0.00	\$0.00	\$2,016.00	\$0.00	\$0.00	\$0
214	1.3.1.2.11.8	Hardware	LLNL	M&S	2	0 wks	\$0.00	\$12,000.00	\$0.00	\$12,000.00	\$2,268.00	\$3,567.00	\$17,835
		LLNL M&S Total		M&S	0	12,000	\$0.00	\$0.00	\$0.00	\$12,000.00	\$0.00	\$0.00	\$0
215	1.3.1.2.11.8	Installation	LLNL	B&H	2	2 wks	\$0.00	\$0.00	\$4,160.00	\$4,160.00	\$4,076.80	\$2,059.20	\$10,296
		LLNL Mech. Fab: Assembly Tech		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,160.00	\$0.00	\$0.00	\$0

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ID 1216	CWBS 1.3.1.2.12	Task Name Vac/Mech Systems	OBS	PHASE	Risk 0	Units 32 wks	PED (Direct) \$0.00	M&S (Direct) \$80,000.00	Labor (Direct) \$68,880.00	Direct Cost \$148,880.00	Overhead Cost \$82,622.40	Contingency Cost \$57,875.60	Total Cost \$289,378.0
1217	1.3.1.2.12.1	Isolation valve-w/ Be window	LLNL		0	5 wks	\$0.00	\$10,000.00	\$10,840.00	\$20,840.00	\$12,513.20	\$8,338.30	\$41,691.5
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1218	1.3.1.2.12.1	Prototype Hardware	LLNL	ED&I	2	1 wk	\$0.00	\$0.00	\$2,520.00	\$2,520.00	\$2,469.60	\$1,247.40	\$6,237.0
		LLNL PCD:Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,520.00	\$0.00	\$0.00	\$0.0
1219	1.3.1.2.12.1	Prototype Hardware	LLNL	M&S	2	0 wks	\$0.00	\$10,000.00	\$0.00	\$10,000.00	\$1,890.00	\$2,972.50	\$14,862.5
		LLNL M&S Total		M&S	0	10,000	\$0.00	\$0.00	\$0.00	\$10,000.00	\$0.00	\$0.00	\$0.0
220	1.3.1.2.12.1	Characterization	LLNL	B&H	2	4 wks	\$0.00	\$0.00	\$8,320.00	\$8,320.00	\$8,153.60	\$4,118.40	\$20,592.0
		LLNL Mech. Fab: Assembly Tech		B&H	0	4 wks	\$0.00	\$0.00	\$0.00	\$8,320.00	\$0.00	\$0.00	\$0.0
221	1.3.1.2.12.2	Stands	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
222	1.3.1.2.12.2	Spec	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
223	1.3.1.2.12.2	Engr & Safety note	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
224	1.3.1.2.12.2	 Design	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
225	1.3.1.2.12.3	Vacuum systems-Elect/controls	LLNL		0	27 wks	\$0.00	\$70,000.00	\$58,040.00	\$128,040.00	\$70,109.20	\$49,537.30	\$247,686.5
226	1.3.1.2.12.3	Hardware/software	LLNL	M&S	2	0 wks	\$0.00	\$70,000.00	\$0.00	\$70,000.00	\$13,230.00	\$20,807.50	\$104,037.
		LLNL M&S Total		M&S	0	70,000	\$0.00	\$0.00	\$0.00	\$70,000.00	\$0.00	\$0.00	\$0.0
207	1.3.1.2.12.3		LLNL	ED&I			\$0.00	\$0.00	\$5,040.00		\$4,939.20	\$2.494.80	\$12,474.
227	1.3.1.2.12.3	Hardware/software	LLNL		2	2 wks	,,,,,,			\$5,040.00		,,,,,,,,	
		LLNL PCD:Coordinator Associate		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$5,040.00	\$0.00	\$0.00	\$0.
228	1.3.1.2.12.3	Electr. Install	LLNL	B&H	2	25 wks	\$0.00	\$0.00	\$53,000.00	\$53,000.00	\$51,940.00	\$26,235.00	\$131,175.
		LLNL Controls: Technician		B&H	0	25 wks	\$0.00	\$0.00	\$0.00	\$53,000.00	\$0.00	\$0.00	\$0.0
229	1.3.1.3	Facility Optical Systems			0	5,308.5 wks	\$0.00	\$1,924,000.00	\$733,652.00	\$2,657,652.00	\$1,082,614.96	\$740,274.49	\$4,480,541.4
230	1.3.1.3.1	Fixed Mask			0	7.5 wks	\$0.00	\$26,000.00	\$15,600.00	\$41,600.00	\$20,202.00	\$15,450.50	\$77,252.5
231	1.3.1.3.1.1	Mask	LLNL		0	0 wks	\$0.00	\$13,000.00	\$0.00	\$13,000.00	\$2,457.00	\$3,864.25	\$19,321.2
232	1.3.1.3.1.1	Hardware	LLNL	M&S	2	0 wks	\$0.00	\$13,000.00	\$0.00	\$13,000.00	\$2,457.00	\$3,864.25	\$19,321.
		LLNL M&S Total		M&S	0	13,000	\$0.00	\$0.00	\$0.00	\$13,000.00	\$0.00	\$0.00	\$0.
233	1.3.1.3.1.2	Integ & Test	LLNL		0	2.5 wks	\$0.00	\$0.00	\$5,200.00	\$5,200.00	\$5,096.00	\$2,574.00	\$12,870.
234	1.3.1.3.1.2	Bench Assembly	LLNL	B&H	2	0.5 wks	\$0.00	\$0.00	\$1,040.00	\$1,040.00	\$1,019.20	\$514.80	\$2,574.
		LLNL Mech. Fab: Assembly Tech		B&H	0	0.5 wks	\$0.00	\$0.00	\$0.00	\$1,040.00	\$0.00	\$0.00	\$0.0
235	1.3.1.3.1.2	Perform Test	LLNL	B&H	2	1 wk	\$0.00	\$0.00	\$2,080.00	\$2,080.00	\$2,038.40	\$1,029.60	\$5,148.
		LLNL Mech. Fab: Assembly Tech		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,080.00	\$0.00	\$0.00	\$0.
236	1.3.1.3.1.2	Beamline install	LLNL	B&H	2	1 wk	\$0.00	\$0.00	\$2,080.00	\$2,080.00	\$2,038.40	\$1,029.60	\$5,148.
		LLNL Mech. Fab: Assembly Tech		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,080.00	\$0.00	\$0.00	\$0.
237	1.3.1.3.1.3	Mask	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
238	1.3.1.3.1.3	Hardware	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
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239	1.3.1.3.1.4	Integ & Test	LLNL		2	2.5 wks	\$0.00	\$0.00	\$5,200.00	\$5,200.00	\$5,096.00	\$2,574.00	\$12,870.
240	1.3.1.3.1.4	Bench Assembly	LLNL	B&H	2	0.5 wks	\$0.00	\$0.00	\$1,040.00	\$1,040.00	\$1,019.20	\$514.80	\$2,574.0

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ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		LLNL Mech. Fab: Assembly Tech		B&H	0	0.5 wks	\$0.00	\$0.00	\$0.00	\$1,040.00	\$0.00	\$0.00	\$0.00
4241	1.3.1.3.1.4	Perform Test	LLNL	B&H	2	1 wk	\$0.00	\$0.00	\$2,080.00	\$2,080.00	\$2,038.40	\$1,029.60	\$5,148.00
		LLNL Mech. Fab: Assembly Tech		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,080.00	\$0.00	\$0.00	\$0.00
4242	1.3.1.3.1.4	Beamline install	LLNL	B&H	2	1 wk	\$0.00	\$0.00	\$2,080.00	\$2,080.00	\$2,038.40	\$1,029.60	\$5,148.00
		LLNL Mech. Fab: Assembly Tech		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,080.00	\$0.00	\$0.00	\$0.00
4243	1.3.1.3.1.5	Mask	LLNL		2	0 wks	\$0.00	\$13,000.00	\$0.00	\$13,000.00	\$2,457.00	\$3,864.25	\$19,321.25
4244	1.3.1.3.1.5	Hardware	LLNL	M&S	2	0 wks	\$0.00	\$13,000.00	\$0.00	\$13,000.00	\$2,457.00	\$3,864.25	\$19,321.25
		LLNL M&S Total		M&S	0	13,000	\$0.00	\$0.00	\$0.00	\$13,000.00	\$0.00	\$0.00	\$0.00
4245	1.3.1.3.1.6	Integ & Test	LLNL		0	2.5 wks	\$0.00	\$0.00	\$5,200.00	\$5,200.00	\$5,096.00	\$2,574.00	\$12,870.00
4246	1.3.1.3.1.6	Bench Assembly	LLNL	B&H	2	0.5 wks	\$0.00	\$0.00	\$1,040.00	\$1,040.00	\$1,019.20	\$514.80	\$2,574.00
		LLNL Mech. Fab: Assembly Tech		B&H	0	0.5 wks	\$0.00	\$0.00	\$0.00	\$1,040.00	\$0.00	\$0.00	\$0.00
4247	1.3.1.3.1.6	Perform Test	LLNL	B&H	2	1 wk	\$0.00	\$0.00	\$2,080.00	\$2,080.00	\$2,038.40	\$1,029.60	\$5,148.00
		LLNL Mech. Fab: Assembly Tech		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,080.00	\$0.00	\$0.00	\$0.00
4248	1.3.1.3.1.6	Beamline install	LLNL	B&H	2	1 wk	\$0.00	\$0.00	\$2,080.00	\$2,080.00	\$2,038.40	\$1,029.60	\$5,148.00
		LLNL Mech. Fab: Assembly Tech		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,080.00	\$0.00	\$0.00	\$0.00
4249	1.3.1.3.2	Slits/Collimator A			0	46.2 wks	\$0.00	\$224,000.00	\$118,584.00	\$342,584.00	\$158,548.32	\$86,587.64	\$587,719.96
4250	1.3.1.3.2.1	Precision Motion	LLNL		0	6.5 wks	\$0.00	\$32,000.00	\$21,900.00	\$53,900.00	\$27,510.00	\$0.00	\$81,410.00
4251	1.3.1.3.2.1	Hardware	LLNL	M&S	0	0 wks	\$0.00	\$32,000.00	\$0.00	\$32,000.00	\$6,048.00	\$0.00	\$38,048.00
		LLNL M&S Total		M&S	0	32,000	\$0.00	\$0.00	\$0.00	\$32,000.00	\$0.00	\$0.00	\$0.00
4252	1.3.1.3.2.1	Hardware	LLNL	ED&I	0	0.5 wks	\$0.00	\$0.00	\$1,260.00	\$1,260.00	\$1,234.80	\$0.00	\$2,494.80
		LLNL PCD:Coordinator Associate		ED&I	0	0.5 wks	\$0.00	\$0.00	\$0.00	\$1,260.00	\$0.00	\$0.00	\$0.00
4253	1.3.1.3.2.1	Assly & Test	LLNL	B&H	0	6 wks	\$0.00	\$0.00	\$20,640.00	\$20,640.00	\$20,227.20	\$0.00	\$40,867.20
		LLNL Precision Crafts (mach/tech)		B&H	0	6 wks	\$0.00	\$0.00	\$0.00	\$20,640.00	\$0.00	\$0.00	\$0.00
4254	1.3.1.3.2.2	Jaws	LLNL		0	10 wks	\$0.00	\$48,000.00	\$19,040.00	\$67,040.00	\$27,731.20	\$23,692.80	\$118,464.00
4255	1.3.1.3.2.2	Hardware	LLNL	M&S	2	0 wks	\$0.00	\$48,000.00	\$0.00	\$48,000.00	\$9,072.00	\$14,268.00	\$71,340.00
		LLNL M&S Total		M&S	0	48,000	\$0.00	\$0.00	\$0.00	\$48,000.00	\$0.00	\$0.00	\$0.00
4256	1.3.1.3.2.2	Characterization	LLNL	ED&I	2	8 wks	\$0.00	\$0.00	\$12,160.00	\$12,160.00	\$11,916.80	\$6,019.20	\$30,096.00
		LLNL Physicist - Post Doc		ED&I	0	8 wks	\$0.00	\$0.00	\$0.00	\$12,160.00	\$0.00	\$0.00	\$0.00
4257	1.3.1.3.2.2	Characterization	LLNL	ED&I	2	2 wks	\$0.00	\$0.00	\$6,880.00	\$6,880.00	\$6,742.40	\$3,405.60	\$17,028.00
		LLNL Precision Engineer		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$6,880.00	\$0.00	\$0.00	\$0.00
4258	1.3.1.3.2.3	Controls & Elect	LLNL		0	3.2 wks	\$0.00	\$23,000.00	\$6,864.00	\$29,864.00	\$11,073.72	\$10,234.43	\$51,172.15
4259	1.3.1.3.2.3		LLNL	M&S	2	0 wks	\$0.00	\$23,000.00	\$0.00	\$23,000.00	\$4,347.00	\$6,836.75	\$34,183.75
		LLNL M&S Total		M&S	0	23,000	\$0.00	\$0.00	\$0.00	\$23,000.00	\$0.00	\$0.00	\$0.00
4260	1.3.1.3.2.3		LLNL	ED&I	2	0.2 wks	\$0.00	\$0.00	\$504.00	\$504.00	\$493.92	\$249.48	\$1,247.40
7200	1.0.1.0.2.3		LLINL										
		LLNL PCD:Coordinator Associate		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$504.00	\$0.00	\$0.00	\$0.00

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ID		Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
261	1.3.1.3.2.3	Assly & Test	LLNL	B&H	2	3 wks	\$0.00	\$0.00	\$6,360.00	\$6,360.00	\$6,232.80	\$3,148.20	\$15,741.
		LLNL Controls: Technician		B&H	0	3 wks	\$0.00	\$0.00	\$0.00	\$6,360.00	\$0.00	\$0.00	\$0.
262	1.3.1.3.2.4	Integ & Test	LLNL		0	17 wks	\$0.00	\$0.00	\$50,800.00	\$50,800.00	\$49,784.00	\$25,146.00	\$125,730.
63	1.3.1.3.2.4	Bench Assembly	LLNL	B&H	2	3 wks	\$0.00	\$0.00	\$10,320.00	\$10,320.00	\$10,113.60	\$5,108.40	\$25,542
\dashv		LLNL Precision Crafts (mach/tech)		B&H	0	3 wks	\$0.00	\$0.00	\$0.00	\$10,320.00	\$0.00	\$0.00	\$0
64	1.3.1.3.2.4	Perform Test	LLNL	B&H	2	3 wks	\$0.00	\$0.00	\$10,320.00	\$10,320.00	\$10,113.60	\$5,108.40	\$25,542
\dashv		LLNL Precision Crafts (mach/tech)		B&H	0	3 wks	\$0.00	\$0.00	\$0.00	\$10,320.00	\$0.00	\$0.00	\$0
65	1.3.1.3.2.4	Beamline install	LLNL	B&H	2	3 wks	\$0.00	\$0.00	\$10,320.00	\$10,320.00	\$10,113.60	\$5,108.40	\$25,542
\dashv		LLNL Precision Crafts (mach/tech)		B&H	0	3 wks	\$0.00	\$0.00	\$0.00	\$10,320.00	\$0.00	\$0.00	\$0
66	1.3.1.3.2.4	Beamline test	LLNL	ED&I	2	4 wks	\$0.00	\$0.00	\$6,080.00	\$6,080.00	\$5,958.40	\$3,009.60	\$15,048
\dashv		LLNL Physicist - Post Doc		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$6,080.00	\$0.00	\$0.00	\$0
67	1.3.1.3.2.4	Beamline test	LLNL	ED&I	2	4 wks	\$0.00	\$0.00	\$13,760.00	\$13,760.00	\$13,484.80	\$6,811.20	\$34,056
\dashv		LLNL Precision Engineer		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$13,760.00	\$0.00	\$0.00	\$0
68	1.3.1.3.2.5	Tank	LLNL		0	4.1 wks	\$0.00	\$40,000.00	\$8,572.00	\$48,572.00	\$15,960.56	\$9,679.88	\$74,212
69	1.3.1.3.2.5	Fabrication	LLNL	M&S	1	0 wks	\$0.00	\$30,000.00	\$0.00	\$30,000.00	\$5,670.00	\$5,350.50	\$41,02
		LLNL M&S Total		M&S	0	30,000	\$0.00	\$0.00	\$0.00	\$30,000.00	\$0.00	\$0.00	\$
70	1.3.1.3.2.5		LLNL	ED&I	1	0.1 wks	\$0.00	\$0.00	\$252.00	\$252.00	\$246.96	\$74.84	\$57
	1.0.1.0.2.0	LLNL PCD:Coordinator Associate	LEIVE	ED&I	0	0.1 wks	\$0.00	\$0.00	\$0.00	\$252.00	\$0.00	\$0.00	\$
71	1.3.1.3.2.5		LLNL	M&S	1	0.7 wks	\$0.00	\$10.000.00	\$0.00	\$10,000.00	\$1,890.00	\$1.783.50	\$13,67
., ,	1.0.1.0.2.0	LLNL M&S Total	LLINE	M&S	'		\$0.00	\$0.00	\$0.00			\$0.00	
					0	10,000				\$10,000.00	\$0.00		\$
72	1.3.1.3.2.5		LLNL	B&H	1	4 wks	\$0.00	\$0.00	\$8,320.00	\$8,320.00	\$8,153.60	\$2,471.04	\$18,94
		LLNL Mech. Fab: Assembly Tech		B&H	0	4 wks	\$0.00	\$0.00	\$0.00	\$8,320.00	\$0.00	\$0.00	\$
73	1.3.1.3.2.6	Vacuum	LLNL		0	4.2 wks	\$0.00	\$71,000.00	\$8,824.00	\$79,824.00	\$22,066.52	\$15,283.58	\$117,174
74	1.3.1.3.2.6	Pumps	LLNL	M&S	1	0 wks	\$0.00	\$57,000.00	\$0.00	\$57,000.00	\$10,773.00	\$10,165.95	\$77,93
		LLNL M&S Total		M&S	0	57,000	\$0.00	\$0.00	\$0.00	\$57,000.00	\$0.00	\$0.00	\$6
75	1.3.1.3.2.6	Pumps	LLNL	ED&I	1	0.2 wks	\$0.00	\$0.00	\$504.00	\$504.00	\$493.92	\$149.69	\$1,14
\dashv		LLNL PCD:Coordinator Associate		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$504.00	\$0.00	\$0.00	\$
76	1.3.1.3.2.6	Gauges	LLNL	M&S	1	0 wks	\$0.00	\$6,000.00	\$0.00	\$6,000.00	\$1,134.00	\$1,070.10	\$8,20
\dashv		LLNL M&S Total		M&S	0	6,000	\$0.00	\$0.00	\$0.00	\$6,000.00	\$0.00	\$0.00	\$
77	1.3.1.3.2.6	Hardware	LLNL	M&S	1	0 wks	\$0.00	\$8,000.00	\$0.00	\$8,000.00	\$1,512.00	\$1,426.80	\$10,93
\dashv		LLNL M&S Total		M&S	0	8,000	\$0.00	\$0.00	\$0.00	\$8,000.00	\$0.00	\$0.00	\$
78	1.3.1.3.2.6	Installation	LLNL	B&H	1	1 wk	\$0.00	\$0.00	\$2,080.00	\$2,080.00	\$2,038.40	\$617.76	\$4,73
		LLNL Mech. Fab: Assembly Tech		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,080.00	\$0.00	\$0.00	\$
79	1.3.1.3.2.6	Leak check	LLNL	B&H	1	3 wks	\$0.00	\$0.00	\$6,240.00	\$6,240.00	\$6,115.20	\$1,853.28	\$14,20
_		LLNL Mech. Fab: Assembly Tech		B&H	0	3 wks	\$0.00	\$0.00	\$0.00	\$6.240.00	\$0.00	\$0.00	\$0

ID 280	CWBS 1.3.1.3.2.7	Task Name Stand	OBS LLNL	PHASE	Risk 0	Units 1.2 wks	PED (Direct)	M&S (Direct) \$10,000.00	Labor (Direct) \$2,584.00	Direct Cost \$12,584.00	Overhead Cost \$4,422.32	Contingency Cost \$2,550.95	Total Cost \$19,557.2
281	1.3.1.3.2.7	Fabrication	LLNL	M&S	1	0 wks	\$0.00	\$10,000.00	\$0.00	\$10,000.00	\$1,890.00	\$1,783.50	\$13,673.5
		LLNL M&S Total		M&S	0	10,000	\$0.00	\$0.00	\$0.00	\$10,000.00	\$0.00	\$0.00	\$0.
282	1.3.1.3.2.7		LLNL	ED&I	1	0.2 wks	\$0.00	\$0.00	\$504.00	\$504.00	\$493.92	\$149.69	\$1,147.
	11011101211	LLNL PCD:Coordinator Associate		ED&I		0.2 wks	\$0.00	\$0.00	\$0.00	\$504.00	\$0.00	\$0.00	\$0.
					0								
283	1.3.1.3.2.7	Installation	LLNL	B&H	1	1 wk	\$0.00	\$0.00	\$2,080.00	\$2,080.00	\$2,038.40	\$617.76	\$4,736
		LLNL Mech. Fab: Assembly Tech		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,080.00	\$0.00	\$0.00	\$0
284	1.3.1.3.3	Slits/Collimator B			0	43.8 wks	\$0.00	\$279,000.00	\$113,680.00	\$392,680.00	\$164,137.40	\$121,832.40	\$678,649
285	1.3.1.3.3.1	Precision Motion	LLNL		0	6.5 wks	\$0.00	\$64,000.00	\$21,900.00	\$85,900.00	\$33,558.00	\$29,864.50	\$149,322
286	1.3.1.3.3.1	Hardware	LLNL	M&S	2	0 wks	\$0.00	\$64,000.00	\$0.00	\$64,000.00	\$12,096.00	\$19,024.00	\$95,120
		LLNL M&S Total		M&S	0	64,000	\$0.00	\$0.00	\$0.00	\$64,000.00	\$0.00	\$0.00	\$0
287	1.3.1.3.3.1	Hardware	LLNL	ED&I	2	0.5 wks	\$0.00	\$0.00	\$1,260.00	\$1,260.00	\$1,234.80	\$623.70	\$3,118
		LLNL PCD:Coordinator Associate		ED&I	0	0.5 wks	\$0.00	\$0.00	\$0.00	\$1,260.00	\$0.00	\$0.00	\$0
288	1.3.1.3.3.1	Assly & Test	LLNL	B&H	2	6 wks	\$0.00	\$0.00	\$20,640.00	\$20,640.00	\$20,227.20	\$10,216.80	\$51,084
		LLNL Precision Crafts (mach/tech)		B&H	0	6 wks	\$0.00	\$0.00	\$0.00	\$20,640.00	\$0.00	\$0.00	\$0
89	1.3.1.3.3.2	Jaws	LLNL		0	10 wks	\$0.00	\$48,000.00	\$19,040.00	\$67,040.00	\$27,731.20	\$23,692.80	\$118,464
90	1.3.1.3.3.2	Hardware	LLNL	M&S	2	0 wks	\$0.00	\$48,000.00	\$0.00	\$48,000.00	\$9,072.00	\$14,268.00	\$71,340
	11011101012	LLNL M&S Total		M&S	0	48,000	\$0.00	\$0.00	\$0.00	\$48,000.00	\$0.00	\$0.00	\$6
291	1.3.1.3.3.2		LLNL	ED&I	2	8 wks	\$0.00	\$0.00	\$12,160.00	\$12,160.00	\$11,916.80	\$6.019.20	\$30.096
291	1.3.1.3.3.2		LLINL				,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	,,,,,	, ,			****	*****
		LLNL Physicist - Post Doc		ED&I	0	8 wks	\$0.00	\$0.00	\$0.00	\$12,160.00	\$0.00	\$0.00	\$0
92	1.3.1.3.3.2	Characterization	LLNL	ED&I	2	2 wks	\$0.00	\$0.00	\$6,880.00	\$6,880.00	\$6,742.40	\$3,405.60	\$17,028
		LLNL Precision Engineer		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$6,880.00	\$0.00	\$0.00	\$0
293	1.3.1.3.3.3	Controls & Elect	LLNL		0	3.2 wks	\$0.00	\$46,000.00	\$6,864.00	\$52,864.00	\$15,420.72	\$17,071.18	\$85,355
294	1.3.1.3.3.3	Hardware	LLNL	M&S	2	0 wks	\$0.00	\$46,000.00	\$0.00	\$46,000.00	\$8,694.00	\$13,673.50	\$68,367
		LLNL M&S Total		M&S	0	46,000	\$0.00	\$0.00	\$0.00	\$46,000.00	\$0.00	\$0.00	\$0
95	1.3.1.3.3.3	Hardware	LLNL	ED&I	2	0.2 wks	\$0.00	\$0.00	\$504.00	\$504.00	\$493.92	\$249.48	\$1,247
		LLNL PCD:Coordinator Associate		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$504.00	\$0.00	\$0.00	\$0
296	1.3.1.3.3.3	Assly & Test	LLNL	B&H	2	3 wks	\$0.00	\$0.00	\$6,360.00	\$6,360.00	\$6,232.80	\$3,148.20	\$15,74
		LLNL Controls: Technician		B&H	0	3 wks	\$0.00	\$0.00	\$0.00	\$6,360.00	\$0.00	\$0.00	\$0
297	1.3.1.3.3.4	Integ & Test	LLNL		0	17 wks	\$0.00	\$0.00	\$50,800.00	\$50,800.00	\$49,784.00	\$25,146.00	\$125,730
98	1.3.1.3.3.4	-	LLNL	B&H	2	3 wks	\$0.00	\$0.00	\$10,320.00	\$10,320.00	\$10,113.60	\$5,108.40	\$25,542
30	1.5.1.5.5.4	·	LLINL	B&H			\$0.00			\$10,320.00			
		LLNL Precision Crafts (mach/tech)			0	3 wks		\$0.00	\$0.00		\$0.00	\$0.00	\$0
99	1.3.1.3.3.4		LLNL	B&H	2	3 wks	\$0.00	\$0.00	\$10,320.00	\$10,320.00	\$10,113.60	\$5,108.40	\$25,54
		LLNL Precision Crafts (mach/tech)		B&H	0	3 wks	\$0.00	\$0.00	\$0.00	\$10,320.00	\$0.00	\$0.00	\$0
300	1.3.1.3.3.4	Beamline install	LLNL	B&H	2	3 wks	\$0.00	\$0.00	\$10,320.00	\$10,320.00	\$10,113.60	\$5,108.40	\$25,542

ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		LLNL Precision Crafts (mach/tech)		B&H	0	3 wks	\$0.00	\$0.00	\$0.00	\$10,320.00	\$0.00	\$0.00	\$0.0
301	1.3.1.3.3.4	Beamline test	LLNL	ED&I	2	4 wks	\$0.00	\$0.00	\$6,080.00	\$6,080.00	\$5,958.40	\$3,009.60	\$15,048.0
		LLNL Physicist - Post Doc		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$6,080.00	\$0.00	\$0.00	\$0.0
302	1.3.1.3.3.4	Beamline test	LLNL	ED&I	2	4 wks	\$0.00	\$0.00	\$13,760.00	\$13,760.00	\$13,484.80	\$6,811.20	\$34,056.0
		LLNL Precision Engineer		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$13,760.00	\$0.00	\$0.00	\$0.0
303	1.3.1.3.3.5	Tank	LLNL		0	4.1 wks	\$0.00	\$40,000.00	\$8,572.00	\$48,572.00	\$15,960.56	\$9,679.88	\$74,212.4
304	1.3.1.3.3.5	Fabrication	LLNL	M&S	1	0 wks	\$0.00	\$30,000.00	\$0.00	\$30,000.00	\$5,670.00	\$5,350.50	\$41,020.
		LLNL M&S Total		M&S	0	30,000	\$0.00	\$0.00	\$0.00	\$30,000.00	\$0.00	\$0.00	\$0.0
305	1.3.1.3.3.5	Fabrication	LLNL	ED&I	1	0.1 wks	\$0.00	\$0.00	\$252.00	\$252.00	\$246.96	\$74.84	\$573.8
		LLNL PCD:Coordinator Associate		ED&I	0	0.1 wks	\$0.00	\$0.00	\$0.00	\$252.00	\$0.00	\$0.00	\$0.0
306	1.3.1.3.3.5	Accept. Test	LLNL	M&S	1	0 wks	\$0.00	\$10,000.00	\$0.00	\$10,000.00	\$1,890.00	\$1,783.50	\$13,673.
		LLNL M&S Total		M&S	0	10,000	\$0.00	\$0.00	\$0.00	\$10,000.00	\$0.00	\$0.00	\$0.0
307	1.3.1.3.3.5	Installation	LLNL	B&H	1	4 wks	\$0.00	\$0.00	\$8,320.00	\$8,320.00	\$8,153.60	\$2,471.04	\$18,944.
		LLNL Mech. Fab: Assembly Tech		B&H	0	4 wks	\$0.00	\$0.00	\$0.00	\$8,320.00	\$0.00	\$0.00	\$0.
308	1.3.1.3.3.6	Vacuum	LLNL		0	1.6 wks	\$0.00	\$71,000.00	\$3,416.00	\$74,416.00	\$16,766.68	\$13,677.40	\$104,860.
309	1.3.1.3.3.6	Pumps	LLNL	M&S	1	0 wks	\$0.00	\$57,000.00	\$0.00	\$57,000.00	\$10,773.00	\$10,165.95	\$77,938.
		LLNL M&S Total		M&S	0	57,000	\$0.00	\$0.00	\$0.00	\$57,000.00	\$0.00	\$0.00	\$0.
310	1.3.1.3.3.6	Pumps	LLNL	ED&I	1	0.2 wks	\$0.00	\$0.00	\$504.00	\$504.00	\$493.92	\$149.69	\$1,147.
		LLNL PCD:Coordinator Associate		ED&I	1	0.2 wks	\$0.00	\$0.00	\$0.00	\$504.00	\$0.00	\$0.00	\$0.0
311	1.3.1.3.3.6	Gauges	LLNL	M&S	1	0 wks	\$0.00	\$6,000.00	\$0.00	\$6,000.00	\$1,134.00	\$1,070.10	\$8,204.
		LLNL M&S Total		M&S	0	6,000	\$0.00	\$0.00	\$0.00	\$6,000.00	\$0.00	\$0.00	\$0.
312	1.3.1.3.3.6	Hardware	LLNL	M&S	1	0 wks	\$0.00	\$8,000.00	\$0.00	\$8,000.00	\$1,512.00	\$1,426.80	\$10,938.
		LLNL M&S Total		M&S	0	8,000	\$0.00	\$0.00	\$0.00	\$8,000.00	\$0.00	\$0.00	\$0.
313	1.3.1.3.3.6	Installation	LLNL	B&H	1	0.4 wks	\$0.00	\$0.00	\$832.00	\$832.00	\$815.36	\$247.10	\$1,894.
		LLNL Mech. Fab: Assembly Tech		B&H	0	0.4 wks	\$0.00	\$0.00	\$0.00	\$832.00	\$0.00	\$0.00	\$0.
314	1.3.1.3.3.6		LLNL	B&H	1	1 wk	\$0.00	\$0.00	\$2,080.00	\$2,080.00	\$2,038.40	\$617.76	\$4,736.
014	1.0.1.0.0.0	LLNL Mech. Fab: Assembly Tech	LEIVE	B&H	. 0	1 wk	\$0.00	\$0.00	\$0.00	\$2,080.00	\$0.00	\$0.00	\$0.
315	1.3.1.3.3.7	Stand	LLNL	Dan	0	1.4 wks	\$0.00	\$10,000.00	\$3,088.00	\$13,088.00	\$4,916.24	\$2,700.64	\$20,704.
316			LLNL	M&S	0								\$13,673.
316	1.3.1.3.3.7		LLINL		'	0 wks	\$0.00	\$10,000.00	\$0.00	\$10,000.00	\$1,890.00	\$1,783.50	
		LLNL M&S Total		M&S	0	10,000	\$0.00	\$0.00	\$0.00	\$10,000.00	\$0.00	\$0.00	\$0.
317	1.3.1.3.3.7		LLNL	ED&I	1	0.4 wks	\$0.00	\$0.00	\$1,008.00	\$1,008.00	\$987.84	\$299.38	\$2,295.
		LLNL PCD:Coordinator Associate		ED&I	0	0.4 wks	\$0.00	\$0.00	\$0.00	\$1,008.00	\$0.00	\$0.00	\$0.
318	1.3.1.3.3.7	Installation	LLNL	B&H	1	1 wk	\$0.00	\$0.00	\$2,080.00	\$2,080.00	\$2,038.40	\$617.76	\$4,736.
		LLNL Mech. Fab: Assembly Tech		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,080.00	\$0.00	\$0.00	\$0.
319	1.3.1.3.4	Gas Attenuator			0	5,061.5 wks	\$0.00	\$754,000.00	\$135,920.00	\$889,920.00	\$275,707.60	\$186,358.32	\$1,351,985.9

ID		Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
4320	1.3.1.3.4.1	Chamber Work Order	LLNL		0	4 wks	\$0.00	\$61,000.00	\$8,320.00	\$69,320.00	\$19,682.60	\$14,997.75	\$104,000.3
4321	1.3.1.3.4.1	Three piece chamber	LLNL	M&S	1	0 wks	\$0.00	\$35,000.00	\$0.00	\$35,000.00	\$6,615.00	\$6,242.25	\$47,857.2
		LLNL M&S Total		M&S	0	35,000	\$0.00	\$0.00	\$0.00	\$35,000.00	\$0.00	\$0.00	\$0.0
1322	1.3.1.3.4.1	Gate Valves 8"	LLNL	M&S	1	0 wks	\$0.00	\$19,000.00	\$0.00	\$19,000.00	\$3,591.00	\$3,388.65	\$25,979.6
		LLNL M&S Total		M&S	0	19,000	\$0.00	\$0.00	\$0.00	\$19,000.00	\$0.00	\$0.00	\$0.0
323	1.3.1.3.4.1	Gate Valves 4"	LLNL	M&S	1	0 wks	\$0.00	\$7,000.00	\$0.00	\$7,000.00	\$1,323.00	\$1,248.45	\$9,571.4
		LLNL M&S Total		M&S	0	7,000	\$0.00	\$0.00	\$0.00	\$7,000.00	\$0.00	\$0.00	\$0.
324	1.3.1.3.4.1	Labor and Assembly	LLNL	B&H	2	4 wks	\$0.00	\$0.00	\$8,320.00	\$8,320.00	\$8,153.60	\$4,118.40	\$20,592.
		LLNL Mech. Fab: Assembly Tech		В&Н	0	4 wks	\$0.00	\$0.00	\$0.00	\$8,320.00	\$0.00	\$0.00	\$0.0
325	1.3.1.3.4.2	Chamber Venture	LLNL		1	2 wks	\$0.00	\$22,000.00	\$4,160.00	\$26,160.00	\$8,234.80	\$2,059.20	\$36,454.
326	1.3.1.3.4.2	Venture	LLNL	M&S	0	0 wks	\$0.00	\$22,000.00	\$0.00	\$22,000.00	\$4,158.00	\$0.00	\$26,158.
		LLNL M&S Total		M&S	0	22,000	\$0.00	\$0.00	\$0.00	\$22,000.00	\$0.00	\$0.00	\$0.
327	1.3.1.3.4.2	Labor and Assembly	LLNL	B&H	2	2 wks	\$0.00	\$0.00	\$4,160.00	\$4,160.00	\$4,076.80	\$2,059.20	\$10,296.
		LLNL Mech. Fab: Assembly Tech		В&Н	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,160.00	\$0.00	\$0.00	\$0.
328	1.3.1.3.4.3	Turbo pumps	LLNL		0	3 wks	\$0.00	\$215,000.00	\$6,240.00	\$221,240.00	\$46,750.20	\$41,434.05	\$309,424.
329	1.3.1.3.4.3	M261 (2x@8.7K\$)	LLNL	M&S	1	0 wks	\$0.00	\$17,000.00	\$0.00	\$17,000.00	\$3,213.00	\$3,031.95	\$23,244
		LLNL M&S Total		M&S	0	17,000	\$0.00	\$0.00	\$0.00	\$17,000.00	\$0.00	\$0.00	\$0.
330	1.3.1.3.4.3	M521 (2x@15.9K\$)	LLNL	M&S	1	0 wks	\$0.00	\$32,000.00	\$0.00	\$32,000.00	\$6,048.00	\$5,707.20	\$43,755
		LLNL M&S Total		M&S	0	32,000	\$0.00	\$0.00	\$0.00	\$32,000.00	\$0.00	\$0.00	\$0.
331	1.3.1.3.4.3	M2101 (4x@34.0K\$)	LLNL	M&S	1	0 wks	\$0.00	\$136,000.00	\$0.00	\$136,000.00	\$25,704.00	\$24,255.60	\$185,959
		LLNL M&S Total		M&S	0	136,000	\$0.00	\$0.00	\$0.00	\$136,000.00	\$0.00	\$0.00	\$0.
332	1.3.1.3.4.3	Display 261 (2x@2.5K\$)	LLNL	M&S	1	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$567.00	\$535.05	\$4,102
		LLNL M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0.
333	1.3.1.3.4.3	Display 521 (2x@1.77K\$)	LLNL	M&S	1	0 wks	\$0.00	\$4,000.00	\$0.00	\$4,000.00	\$756.00	\$713.40	\$5,469
		LLNL M&S Total		M&S	0	4,000	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$0.
334	1.3.1.3.4.3	Display 2101 (4x@1.325K\$)	LLNL	M&S	1	0 wks	\$0.00	\$10,000.00	\$0.00	\$10,000.00	\$1,890.00	\$1,783.50	\$13,673
		LLNL M&S Total		M&S	0	10,000	\$0.00	\$0.00	\$0.00	\$10,000.00	\$0.00	\$0.00	\$0.
335	1.3.1.3.4.3	Cables and Hardware	LLNL	M&S	1	0 wks	\$0.00	\$7,000.00	\$0.00	\$7,000.00	\$1,323.00	\$1,248.45	\$9,571
		LLNL M&S Total		M&S	0	7,000	\$0.00	\$0.00	\$0.00	\$7,000.00	\$0.00	\$0.00	\$0.
336	1.3.1.3.4.3	Gate Controller	LLNL	M&S	1	0 wks	\$0.00	\$6,000.00	\$0.00	\$6,000.00	\$1,134.00	\$1,070.10	\$8,204
		LLNL M&S Total		M&S	0	6,000	\$0.00	\$0.00	\$0.00	\$6,000.00	\$0.00	\$0.00	\$0.
337	1.3.1.3.4.3	Labor and Assembly	LLNL	B&H	2	3 wks	\$0.00	\$0.00	\$6,240.00	\$6,240.00	\$6,115.20	\$3,088.80	\$15,444
		LLNL Mech. Fab: Assembly Tech		B&H	0	3 wks	\$0.00	\$0.00	\$0.00	\$6,240.00	\$0.00	\$0.00	\$0.
338	1.3.1.3.4.4	Dry pumps	LLNL		0	1.5 wks	\$0.00	\$107,000.00	\$3,120.00	\$110,120.00	\$23,280.60	\$20,627.85	\$154,028.
339	1.3.1.3.4.4	M 35 cfm (4x@26.77K\$)	LLNL	M&S	1	0 wks	\$0.00	\$107,000.00	\$0.00	\$107,000.00	\$20,223.00	\$19,083.45	\$146,306.

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ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		LLNL M&S Total		M&S	0	107,000	\$0.00	\$0.00	\$0.00	\$107,000.00	\$0.00	\$0.00	\$0.0
340	1.3.1.3.4.4	Labor and Assembly	LLNL	B&H	2	1.5 wks	\$0.00	\$0.00	\$3,120.00	\$3,120.00	\$3,057.60	\$1,544.40	\$7,722.
		LLNL Mech. Fab: Assembly Tech		B&H	0	1.5 wks	\$0.00	\$0.00	\$0.00	\$3,120.00	\$0.00	\$0.00	\$0.
341	1.3.1.3.4.5	Storage Tanks	LLNL		0	2 wks	\$0.00	\$7,000.00	\$4,160.00	\$11,160.00	\$5,399.80	\$2,483.97	\$19,043.7
342	1.3.1.3.4.5	Manchester Tank (3x@0.8K\$)	LLNL	M&S	1	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$378.00	\$356.70	\$2,734.
		LLNL M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.
343	1.3.1.3.4.5	Platform (2x@2.5K\$)	LLNL	M&S	1	0 wks	\$0.00	\$5,000.00	\$0.00	\$5,000.00	\$945.00	\$891.75	\$6,836
		LLNL M&S Total		M&S	0	5,000	\$0.00	\$0.00	\$0.00	\$5,000.00	\$0.00	\$0.00	\$0.
344	1.3.1.3.4.5	Labor and Assembly	LLNL	B&H	1	2 wks	\$0.00	\$0.00	\$4,160.00	\$4,160.00	\$4,076.80	\$1,235.52	\$9,472
		LLNL Mech. Fab: Assembly Tech		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,160.00	\$0.00	\$0.00	\$0.
345	1.3.1.3.4.6	Gast pumps	LLNL		0	1.5 wks	\$0.00	\$10,000.00	\$3,120.00	\$13,120.00	\$4,947.60	\$3,327.90	\$21,395.
346	1.3.1.3.4.6	Gast Model 6606 4@2.5	LLNL	M&S	1	0 wks	\$0.00	\$10,000.00	\$0.00	\$10,000.00	\$1,890.00	\$1,783.50	\$13,673
		LLNL M&S Total		M&S	0	10,000	\$0.00	\$0.00	\$0.00	\$10,000.00	\$0.00	\$0.00	\$0.
347	1.3.1.3.4.6	Labor and Assembly	LLNL	B&H	2	1.5 wks	\$0.00	\$0.00	\$3,120.00	\$3,120.00	\$3,057.60	\$1,544.40	\$7,722
		LLNL Mech. Fab: Assembly Tech		B&H	0	1.5 wks	\$0.00	\$0.00	\$0.00	\$3,120.00	\$0.00	\$0.00	\$0.
348	1.3.1.3.4.7	Controls	LLNL		0	5 wks	\$0.00	\$206,000.00	\$10,400.00	\$216,400.00	\$49,126.00	\$41,888.10	\$307,414.
349	1.3.1.3.4.7	Press. Control Head 4@1.8	LLNL	M&S	1	0 wks	\$0.00	\$7,000.00	\$0.00	\$7,000.00	\$1,323.00	\$1,248.45	\$9,571
		LLNL M&S Total		M&S	0	7,000	\$0.00	\$0.00	\$0.00	\$7,000.00	\$0.00	\$0.00	\$0.
350	1.3.1.3.4.7	Press. Controller 2@4.5	LLNL	M&S	1	0 wks	\$0.00	\$32,000.00	\$0.00	\$32,000.00	\$6,048.00	\$5,707.20	\$43,755
		LLNL M&S Total		M&S	0	32,000	\$0.00	\$0.00	\$0.00	\$32,000.00	\$0.00	\$0.00	\$0.
351	1.3.1.3.4.7	Multiloop Controller	LLNL	M&S	1	0 wks	\$0.00	\$136,000.00	\$0.00	\$136,000.00	\$25,704.00	\$24,255.60	\$185,959
		LLNL M&S Total		M&S	0	136,000	\$0.00	\$0.00	\$0.00	\$136,000.00	\$0.00	\$0.00	\$0.
352	1.3.1.3.4.7	Press. Sensors	LLNL	M&S	1	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$567.00	\$535.05	\$4,102
		LLNL M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0.
353	1.3.1.3.4.7	Flow Control 2@1.5	LLNL	M&S	1	0 wks	\$0.00	\$4,000.00	\$0.00	\$4,000.00	\$756.00	\$713.40	\$5,469
		LLNL M&S Total		M&S	0	4,000	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$0.
354	1.3.1.3.4.7	Flow Control Drive 2@1	LLNL	M&S	1	0 wks	\$0.00	\$10,000.00	\$0.00	\$10,000.00	\$1,890.00	\$1,783.50	\$13,673
		LLNL M&S Total		M&S	0	10,000	\$0.00	\$0.00	\$0.00	\$10,000.00	\$0.00	\$0.00	\$0
355	1.3.1.3.4.7	Cables and Hardware	LLNL	M&S	1	0 wks	\$0.00	\$7,000.00	\$0.00	\$7,000.00	\$1,323.00	\$1,248.45	\$9,571
		LLNL M&S Total		M&S	0	7,000	\$0.00	\$0.00	\$0.00	\$7,000.00	\$0.00	\$0.00	\$0
356	1.3.1.3.4.7	VME Crate	LLNL	M&S	1	0 wks	\$0.00	\$7,000.00	\$0.00	\$7,000.00	\$1,323.00	\$1,248.45	\$9,571
		LLNL M&S Total		M&S	0	7,000	\$0.00	\$0.00	\$0.00	\$7,000.00	\$0.00	\$0.00	\$0
357	1.3.1.3.4.7	Labor and Assembly	LLNL	B&H	2	5 wks	\$0.00	\$0.00	\$10,400.00	\$10,400.00	\$10,192.00	\$5,148.00	\$25,740
		LLNL Mech. Fab: Assembly Tech		B&H	0	5 wks	\$0.00	\$0.00	\$0.00	\$10,400.00	\$0.00	\$0.00	\$0.
358	1.3.1.3.4.8	GreenField Compression System	LLNL		0	3 wks	\$0.00	\$95,000.00	\$6,240.00	\$101,240.00	\$24.070.20	\$20.032.05	\$145,342.

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ID		Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
1359	1.3.1.3.4.8	GreenField Compressor	LLNL	M&S	1	0 wks	\$0.00	\$95,000.00	\$0.00	\$95,000.00	\$17,955.00	\$16,943.25	\$129,898.2
		LLNL M&S Total		M&S	0	95,000	\$0.00	\$0.00	\$0.00	\$95,000.00	\$0.00	\$0.00	\$0.0
360	1.3.1.3.4.8	Labor and Assembly	LLNL	B&H	2	3 wks	\$0.00	\$0.00	\$6,240.00	\$6,240.00	\$6,115.20	\$3,088.80	\$15,444.0
		LLNL Mech. Fab: Assembly Tech		B&H	0	3 wks	\$0.00	\$0.00	\$0.00	\$6,240.00	\$0.00	\$0.00	\$0.0
361	1.3.1.3.4.9	Transfer Manifold	LLNL		0	5,006 wks	\$0.00	\$0.00	\$12,920.00	\$12,920.00	\$12,661.60	\$1,983.96	\$27,565.
362	1.3.1.3.4.9	Engineering	LLNL	ED&I	1	1 wk	\$0.00	\$0.00	\$2,520.00	\$2,520.00	\$2,469.60	\$748.44	\$5,738.
		LLNL Mechanical Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,520.00	\$0.00	\$0.00	\$0.
363	1.3.1.3.4.9	Drafting ME	LLNL	ED&I	1	2 wks	\$0.00	\$0.00	\$4,160.00	\$4,160.00	\$4,076.80	\$1,235.52	\$9,472.
		LLNL Mech Drafting/Design		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,160.00	\$0.00	\$0.00	\$0.
364	1.3.1.3.4.9	Manifold 2@2.5	LLNL		1	5,000 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
365	1.3.1.3.4.9	Labor and Assembly	LLNL	B&H	0	3 wks	\$0.00	\$0.00	\$6,240.00	\$6,240.00	\$6,115.20	\$0.00	\$12,355.
		LLNL Mech. Fab: Assembly Tech		B&H	2	3 wks	\$0.00	\$0.00	\$0.00	\$6,240.00	\$0.00	\$0.00	\$0.
366	1.3.1.3.4.10	Gas Purifier	LLNL		0	5 wks	\$0.00	\$8,000.00	\$10,840.00	\$18,840.00	\$12,135.20	\$5,469.96	\$36,445.
367	1.3.1.3.4.10	Engineering	LLNL	ED&I	1	1 wk	\$0.00	\$0.00	\$2,520.00	\$2,520.00	\$2,469.60	\$748.44	\$5,738
		LLNL Mechanical Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,520.00	\$0.00	\$0.00	\$0.
368	1.3.1.3.4.10	Drafting ME	LLNL	ED&I	1	2 wks	\$0.00	\$0.00	\$4,160.00	\$4,160.00	\$4,076.80	\$1,235.52	\$9,472
		LLNL Mech Drafting/Design		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,160.00	\$0.00	\$0.00	\$0.
369	1.3.1.3.4.10	NuPure Purifier 2@4	LLNL	M&S	1	0 wks	\$0.00	\$8,000.00	\$0.00	\$8,000.00	\$1,512.00	\$1,426.80	\$10,938
		LLNL M&S Total		M&S	0	8,000	\$0.00	\$0.00	\$0.00	\$8,000.00	\$0.00	\$0.00	\$0.
370	1.3.1.3.4.10	Labor and Assembly	LLNL	B&H	2	2 wks	\$0.00	\$0.00	\$4,160.00	\$4,160.00	\$4,076.80	\$2,059.20	\$10,296
		LLNL Mech. Fab: Assembly Tech		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,160.00	\$0.00	\$0.00	\$0
371	1.3.1.3.4.11	Hardware	LLNL		0	5 wks	\$0.00	\$18,000.00	\$11,280.00	\$29,280.00	\$14,456.40	\$7,845.30	\$51,581.
372	1.3.1.3.4.11	Engineering	LLNL	ED&I	2	2 wks	\$0.00	\$0.00	\$5,040.00	\$5,040.00	\$4,939.20	\$2,494.80	\$12,474
		LLNL Mechanical Engineer		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$5,040.00	\$0.00	\$0.00	\$0
373	1.3.1.3.4.11	Parts	LLNL	M&S	2	0 wks	\$0.00	\$18,000.00	\$0.00	\$18,000.00	\$3,402.00	\$5,350.50	\$26,752
		LLNL M&S Total		M&S	0	18,000	\$0.00	\$0.00	\$0.00	\$18,000.00	\$0.00	\$0.00	\$0.
374	1.3.1.3.4.11	Labor and Assembly	LLNL	B&H	0	3 wks	\$0.00	\$0.00	\$6,240.00	\$6,240.00	\$6,115.20	\$0.00	\$12,355
		LLNL Mech. Fab: Assembly Tech		B&H	2	3 wks	\$0.00	\$0.00	\$0.00	\$6,240.00	\$0.00	\$0.00	\$0.
375	1.3.1.3.4.12	Blower	LLNL		0	4 wks	\$0.00	\$5,000.00	\$8,760.00	\$13,760.00	\$9,529.80	\$2,257.95	\$25,547
376	1.3.1.3.4.12	Engineering	LLNL	ED&I	1	1 wk	\$0.00	\$0.00	\$2,520.00	\$2,520.00	\$2,469.60	\$748.44	\$5,738
		LLNL Mechanical Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,520.00	\$0.00	\$0.00	\$0
377	1.3.1.3.4.12	Drafting ME	LLNL	ED&I	1	1 wk	\$0.00	\$0.00	\$2,080.00	\$2,080.00	\$2,038.40	\$617.76	\$4,736
		LLNL Mech Drafting/Design		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,080.00	\$0.00	\$0.00	\$0
378	1.3.1.3.4.12	Blower	LLNL	M&S	1	0 wks	\$0.00	\$5,000.00	\$0.00	\$5,000.00	\$945.00	\$891.75	\$6,836
		LLNL M&S Total		M&S	0	5,000	\$0.00	\$0.00	\$0.00	\$5,000.00	\$0.00	\$0.00	\$0.

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ID		Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
1379	1.3.1.3.4.12	Labor and Assembly	LLNL	B&H	0	2 wks	\$0.00	\$0.00	\$4,160.00	\$4,160.00	\$4,076.80	\$0.00	\$8,236.8
		LLNL Mech. Fab: Assembly Tech		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,160.00	\$0.00	\$0.00	\$0.0
380	1.3.1.3.4.13	Shipping and Installation	LLNL		0	8.5 wks	\$0.00	\$0.00	\$21,240.00	\$21,240.00	\$20,815.20	\$9,515.88	\$51,571.0
381	1.3.1.3.4.13	Rigging	LLNL	B&H	1	1.5 wks	\$0.00	\$0.00	\$3,780.00	\$3,780.00	\$3,704.40	\$1,122.66	\$8,607.0
		LLNL T&M Crafts - Union Electrician		B&H	0	1.5 wks	\$0.00	\$0.00	\$0.00	\$3,780.00	\$0.00	\$0.00	\$0.0
382	1.3.1.3.4.13	Transportation	LLNL	B&H	1	0.5 wks	\$0.00	\$0.00	\$1,260.00	\$1,260.00	\$1,234.80	\$374.22	\$2,869.
		LLNL T&M Crafts - Union Electrician		B&H	0	0.5 wks	\$0.00	\$0.00	\$0.00	\$1,260.00	\$0.00	\$0.00	\$0.
383	1.3.1.3.4.13	Plumbing	LLNL	В&Н	2	3 wks	\$0.00	\$0.00	\$7,440.00	\$7,440.00	\$7,291.20	\$3,682.80	\$18,414.
		LLNL T&M Crafts - Union Equip. Op.		B&H	0	3 wks	\$0.00	\$0.00	\$0.00	\$7,440.00	\$0.00	\$0.00	\$0.
384	1.3.1.3.4.13	Crafts electrical	LLNL	B&H	2	2 wks	\$0.00	\$0.00	\$5,040.00	\$5,040.00	\$4,939.20	\$2,494.80	\$12,474.
		LLNL Site Engineering: Plant Maint.		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$5,040.00	\$0.00	\$0.00	\$0.
385	1.3.1.3.4.13	Labor & Assembly	LLNL	В&Н	2	1.5 wks	\$0.00	\$0.00	\$3,720.00	\$3,720.00	\$3,645.60	\$1,841.40	\$9,207
		LLNL T&M Crafts - Union Equip. Op.		B&H	0	1.5 wks	\$0.00	\$0.00	\$0.00	\$3,720.00	\$0.00	\$0.00	\$0.
386	1.3.1.3.4.14	Acceptance tests	LLNL		0	11 wks	\$0.00	\$0.00	\$25,120.00	\$25,120.00	\$24,617.60	\$12,434.40	\$62,172.
387	1.3.1.3.4.14	Theory	LLNL	ED&I	2	4 wks	\$0.00	\$0.00	\$8,640.00	\$8,640.00	\$8,467.20	\$4,276.80	\$21,384
		LLNL Physicist -Scientist		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$8,640.00	\$0.00	\$0.00	\$0
388	1.3.1.3.4.14	Engineering	LLNL	ED&I	2	2 wks	\$0.00	\$0.00	\$5,040.00	\$5,040.00	\$4,939.20	\$2,494.80	\$12,474
		LLNL Mechanical Engineer		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$5,040.00	\$0.00	\$0.00	\$0.
389	1.3.1.3.4.14	Programming	LLNL	ED&I	2	3 wks	\$0.00	\$0.00	\$6,480.00	\$6,480.00	\$6,350.40	\$3,207.60	\$16,038
		LLNL Physicist -Scientist		ED&I	0	3 wks	\$0.00	\$0.00	\$0.00	\$6,480.00	\$0.00	\$0.00	\$0
390	1.3.1.3.4.14	Engineering	LLNL	ED&I	2	2 wks	\$0.00	\$0.00	\$4,960.00	\$4,960.00	\$4,860.80	\$2,455.20	\$12,276
		LLNL Electrical Engineer		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,960.00	\$0.00	\$0.00	\$0.
391	1.3.1.3.5	Local Apertures			0	35.1 wks	\$0.00	\$114,000.00	\$83,684.00	\$197,684.00	\$103,556.32	\$71,255.80	\$372,496.
392	1.3.1.3.5.1	Apertures	LLNL		0	9.5 wks	\$0.00	\$20,000.00	\$17,320.00	\$37,320.00	\$20,753.60	\$14,518.40	\$72,592.
393	1.3.1.3.5.1	Hardware	LLNL	M&S	2	0 wks	\$0.00	\$20,000.00	\$0.00	\$20,000.00	\$3,780.00	\$5,945.00	\$29,725
		LLNL M&S Total		M&S	0	20,000	\$0.00	\$0.00	\$0.00	\$20,000.00	\$0.00	\$0.00	\$0.
394	1.3.1.3.5.1	Hardware	LLNL	ED&I	2	0.5 wks	\$0.00	\$0.00	\$1,720.00	\$1,720.00	\$1,685.60	\$851.40	\$4,257
		LLNL Precision Engineer		ED&I	0	0.5 wks	\$0.00	\$0.00	\$0.00	\$1,720.00	\$0.00	\$0.00	\$0
395	1.3.1.3.5.1	Characterization	LLNL	ED&I	2	8 wks	\$0.00	\$0.00	\$12,160.00	\$12,160.00	\$11,916.80	\$6,019.20	\$30,096
		LLNL Physicist - Post Doc		ED&I	0	8 wks	\$0.00	\$0.00	\$0.00	\$12,160.00	\$0.00	\$0.00	\$0
396	1.3.1.3.5.1	Characterization	LLNL	ED&I	2	1 wk	\$0.00	\$0.00	\$3,440.00	\$3,440.00	\$3,371.20	\$1,702.80	\$8,514
		LLNL Precision Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$3,440.00	\$0.00	\$0.00	\$0
397	1.3.1.3.5.2	Integ & Test	LLNL		0	2.2 wks	\$0.00	\$0.00	\$7,568.00	\$7,568.00	\$7,416.64	\$3,746.16	\$18,730
398	1.3.1.3.5.2	Bench Assembly	LLNL	B&H	2	1 wk	\$0.00	\$0.00	\$3,440.00	\$3,440.00	\$3,371.20	\$1,702.80	\$8,514
		LLNL Precision Crafts (mach/tech)		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$3,440.00	\$0.00	\$0.00	\$0.

101	0	CD4	TEC
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ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
399	1.3.1.3.5.2	Perform Test	LLNL	B&H	2 RISK	Units 1 wk	\$0.00	\$0.00	\$3,440.00	\$3,440.00	\$3,371.20	\$1,702.80	\$8,514.0
		LLNL Precision Crafts (mach/tech)		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$3,440.00	\$0.00	\$0.00	\$0.0
400	1.3.1.3.5.2	Beamline install	LLNL	B&H	2	0.2 wks	\$0.00	\$0.00	\$688.00	\$688.00	\$674.24	\$340.56	\$1,702.8
		LLNL Precision Crafts (mach/tech)		B&H	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$688.00	\$0.00	\$0.00	\$0.0
401	1.3.1.3.5.3	Precision Motion	LLNL		0	6.5 wks	\$0.00	\$32,000.00	\$21,900.00	\$53,900.00	\$27,510.00	\$16,298.22	\$97,708.2
402	1.3.1.3.5.3	Hardware	LLNL	M&S	1	0 wks	\$0.00	\$32,000.00	\$0.00	\$32,000.00	\$6,048.00	\$5,707.20	\$43,755.2
		LLNL M&S Total		M&S	0	32,000	\$0.00	\$0.00	\$0.00	\$32,000.00	\$0.00	\$0.00	\$0.0
403	1.3.1.3.5.3	Hardware	LLNL	ED&I	1	0.5 wks	\$0.00	\$0.00	\$1,260.00	\$1,260.00	\$1,234.80	\$374.22	\$2,869.0
-00	1.0.1.0.0.0	LLNL PCD:Coordinator Associate	LENE	ED&I	0	0.5 wks	\$0.00	\$0.00	\$0.00	\$1,260.00	\$0.00	\$0.00	\$0.0
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404	1.3.1.3.5.3	Assly & Test	LLNL	B&H	2	6 wks	\$0.00	\$0.00	\$20,640.00	\$20,640.00	\$20,227.20	\$10,216.80	\$51,084.0
		LLNL Precision Crafts (mach/tech)		B&H	0	6 wks	\$0.00	\$0.00	\$0.00	\$20,640.00	\$0.00	\$0.00	\$0.0
405	1.3.1.3.5.4	Apertures	LLNL		0	9.5 wks	\$0.00	\$20,000.00	\$17,320.00	\$37,320.00	\$20,753.60	\$14,518.40	\$72,592.0
406	1.3.1.3.5.4	Hardware	LLNL	ED&I	2	0.5 wks	\$0.00	\$0.00	\$1,720.00	\$1,720.00	\$1,685.60	\$851.40	\$4,257.0
		LLNL Precision Engineer		ED&I	0	0.5 wks	\$0.00	\$0.00	\$0.00	\$1,720.00	\$0.00	\$0.00	\$0.0
407	1.3.1.3.5.4	Hardware	LLNL	M&S	2	0 wks	\$0.00	\$20,000.00	\$0.00	\$20,000.00	\$3,780.00	\$5,945.00	\$29,725.
\neg		LLNL M&S Total		M&S	0	20,000	\$0.00	\$0.00	\$0.00	\$20,000.00	\$0.00	\$0.00	\$0.
408	1.3.1.3.5.4	Characterization	LLNL	ED&I	2	8 wks	\$0.00	\$0.00	\$12,160.00	\$12,160.00	\$11,916.80	\$6,019.20	\$30,096.
-		LLNL Physicist - Post Doc		ED&I	0	8 wks	\$0.00	\$0.00	\$0.00	\$12,160.00	\$0.00	\$0.00	\$0.
409	1.3.1.3.5.4	Characterization	LLNL	ED&I	2	1 wk	\$0.00	\$0.00	\$3,440.00	\$3,440.00	\$3,371.20	\$1,702.80	\$8,514.
		LLNL Precision Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$3,440.00	\$0.00	\$0.00	\$0.
410	1.3.1.3.5.5	Controls & Elect	LLNL		0	3 wks	\$0.00	\$42,000.00	\$6,360.00	\$48,360.00	\$14,170.80	\$15,632.70	\$78,163.
411	1.3.1.3.5.5	Hardware	LLNL	M&S	2	0 wks	\$0.00	\$42,000.00	\$0.00	\$42,000.00	\$7,938.00	\$12,484.50	\$62,422.
		LLNL M&S Total		M&S	0	42,000	\$0.00	\$0.00	\$0.00	\$42,000.00	\$0.00	\$0.00	\$0.0
412	1.3.1.3.5.5	Assly & Test	LLNL	B&H	2	3 wks	\$0.00	\$0.00	\$6,360.00	\$6,360.00	\$6,232.80	\$3,148.20	\$15,741.
		, LLNL Controls: Technician		B&H	0	3 wks	\$0.00	\$0.00	\$0.00	\$6,360.00	\$0.00	\$0.00	\$0.
413	1.3.1.3.5.6	Integ & Test	LLNL	54.7	0	4.4 wks	\$0.00	\$0.00	\$13,216.00	\$13,216.00	\$12,951.68	\$6,541.92	\$32,709.6
414	1.3.1.3.5.6	Bench Assembly	LLNL	B&H	2	1 wk	\$0.00	\$0.00	\$3,440.00	\$3,440.00	\$3,371.20	\$1,702.80	\$8,514.
+14	1.3.1.3.3.0	•	LLINE										
		LLNL Precision Crafts (mach/tech)		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$3,440.00	\$0.00	\$0.00	\$0.
415	1.3.1.3.5.6	Perform Test	LLNL	B&H	2	1 wk	\$0.00	\$0.00	\$3,440.00	\$3,440.00	\$3,371.20	\$1,702.80	\$8,514.
		LLNL Precision Crafts (mach/tech)		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$3,440.00	\$0.00	\$0.00	\$0.
116	1.3.1.3.5.6	Beamline install	LLNL	B&H	2	0.4 wks	\$0.00	\$0.00	\$1,376.00	\$1,376.00	\$1,348.48	\$681.12	\$3,405.
\neg		LLNL Precision Crafts (mach/tech)		B&H	0	0.4 wks	\$0.00	\$0.00	\$0.00	\$1,376.00	\$0.00	\$0.00	\$0.
417	1.3.1.3.5.6	Beamline test	LLNL	ED&I	2	1 wk	\$0.00	\$0.00	\$1,520.00	\$1,520.00	\$1,489.60	\$752.40	\$3,762
\dashv		LLNL Physicist - Post Doc		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$1,520.00	\$0.00	\$0.00	\$0.
418	1.3.1.3.5.6	Beamline test	LLNL	ED&I	2	1 wk	\$0.00	\$0.00	\$3,440.00	\$3,440.00	\$3,371.20	\$1,702.80	\$8,514.

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ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		LLNL Precision Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$3,440.00	\$0.00	\$0.00	\$0.
119	1.3.1.3.6	Wedge Attenuator			0	55.7 wks	\$0.00	\$86,000.00	\$110,940.00	\$196,940.00	\$124,975.20	\$72,734.40	\$394,649.
120	1.3.1.3.6.1	Motion Control	LLNL		0	3 wks	\$0.00	\$13,000.00	\$9,400.00	\$22,400.00	\$11,669.00	\$2,318.55	\$36,387
121	1.3.1.3.6.1	Hardware	LLNL	M&S	1	0 wks	\$0.00	\$13,000.00	\$0.00	\$13,000.00	\$2,457.00	\$2,318.55	\$17,775
		LLNL M&S Total		M&S	0	13,000	\$0.00	\$0.00	\$0.00	\$13,000.00	\$0.00	\$0.00	\$0
422	1.3.1.3.6.1	Hardware	LLNL	ED&I	0	1 wk	\$0.00	\$0.00	\$2,520.00	\$2,520.00	\$2,469.60	\$0.00	\$4,989
		LLNL PCD:Coordinator Associate		ED&I	2	1 wk	\$0.00	\$0.00	\$0.00	\$2,520.00	\$0.00	\$0.00	\$0
123	1.3.1.3.6.1	Assly & Test	LLNL	B&H	0	2 wks	\$0.00	\$0.00	\$6,880.00	\$6,880.00	\$6,742.40	\$0.00	\$13,622
		LLNL Precision Crafts (mach/tech)		B&H	2	2 wks	\$0.00	\$0.00	\$0.00	\$6,880.00	\$0.00	\$0.00	\$0
124	1.3.1.3.6.2	Attenuator	LLNL		0	10.2 wks	\$0.00	\$12,000.00	\$17,704.00	\$29,704.00	\$19,617.92	\$12,330.48	\$61,652
125	1.3.1.3.6.2	Hardware	LLNL	M&S	2	0 wks	\$0.00	\$12,000.00	\$0.00	\$12,000.00	\$2,268.00	\$3,567.00	\$17,835
\dashv		LLNL M&S Total		M&S	0	12,000	\$0.00	\$0.00	\$0.00	\$12,000.00	\$0.00	\$0.00	\$0
126	1.3.1.3.6.2	Hardware	LLNL	ED&I	2	0.2 wks	\$0.00	\$0.00	\$504.00	\$504.00	\$493.92	\$249.48	\$1,247
		LLNL PCD:Coordinator Associate		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$504.00	\$0.00	\$0.00	\$0
127	1.3.1.3.6.2	Characterization	LLNL	ED&I	2	8 wks	\$0.00	\$0.00	\$12,160.00	\$12,160.00	\$11,916.80	\$6,019.20	\$30,096
		LLNL Physicist - Post Doc		ED&I	0	8 wks	\$0.00	\$0.00	\$0.00	\$12,160.00	\$0.00	\$0.00	\$0
128	1.3.1.3.6.2	Characterization	LLNL	ED&I	2	2 wks	\$0.00	\$0.00	\$5,040.00	\$5,040.00	\$4,939.20	\$2,494.80	\$12,47
_		LLNL Mechanical Engineer		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$5,040.00	\$0.00	\$0.00	\$0
429	1.3.1.3.6.3	Controls & Elect	LLNL		0	3.2 wks	\$0.00	\$12.000.00	\$6,864.00	\$18,864.00	\$8.994.72	\$6.964.68	\$34,823
430	1.3.1.3.6.3		LLNL	M&S	2	0 wks	\$0.00	\$12,000.00	\$0.00	\$12,000.00	\$2,268.00	\$3,567.00	\$17,835
+30	1.3.1.3.0.3	LLNL M&S Total	LLINE	M&S	0	12,000	\$0.00	\$0.00	\$0.00	\$12,000.00	\$0.00	\$0.00	\$17,63
104	101000												
131	1.3.1.3.6.3		LLNL	ED&I	2	0.2 wks	\$0.00	\$0.00	\$504.00	\$504.00	\$493.92	\$249.48	\$1,24
		LLNL PCD:Coordinator Associate		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$504.00	\$0.00	\$0.00	\$0
132	1.3.1.3.6.3	·	LLNL	B&H	2	3 wks	\$0.00	\$0.00	\$6,360.00	\$6,360.00	\$6,232.80	\$3,148.20	\$15,74
		LLNL Controls: Technician		B&H	0	3 wks	\$0.00	\$0.00	\$0.00	\$6,360.00	\$0.00	\$0.00	\$0
133	1.3.1.3.6.4	Integ & Test	LLNL		0	2.6 wks	\$0.00	\$0.00	\$5,360.00	\$5,360.00	\$5,252.80	\$2,653.20	\$13,266
434	1.3.1.3.6.4	Bench Assembly	LLNL	B&H	2	1 wk	\$0.00	\$0.00	\$2,080.00	\$2,080.00	\$2,038.40	\$1,029.60	\$5,148
		LLNL Mech. Fab: Assembly Tech		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,080.00	\$0.00	\$0.00	\$0
135	1.3.1.3.6.4	Perform Test	LLNL	B&H	2	0.4 wks	\$0.00	\$0.00	\$832.00	\$832.00	\$815.36	\$411.84	\$2,05
\neg		LLNL Mech. Fab: Assembly Tech		B&H	0	0.4 wks	\$0.00	\$0.00	\$0.00	\$832.00	\$0.00	\$0.00	\$
136	1.3.1.3.6.4	Beamline install	LLNL	B&H	2	0.4 wks	\$0.00	\$0.00	\$832.00	\$832.00	\$815.36	\$411.84	\$2,05
\dashv		LLNL Mech. Fab: Assembly Tech		B&H	0	0.4 wks	\$0.00	\$0.00	\$0.00	\$832.00	\$0.00	\$0.00	\$0
137	1.3.1.3.6.4	Beamline test	LLNL	ED&I	2	0.4 wks	\$0.00	\$0.00	\$608.00	\$608.00	\$595.84	\$300.96	\$1,50
\dashv		LLNL Physicist - Post Doc		ED&I	0	0.4 wks	\$0.00	\$0.00	\$0.00	\$608.00	\$0.00	\$0.00	\$6
438	1.3.1.3.6.4	Beamline test	LLNL	ED&I	2	0.4 wks	\$0.00	\$0.00	\$1,008.00	\$1,008.00	\$987.84	\$498.96	\$2,494

ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		LLNL AD: Mech/Vacuum Engineer		ED&I	0	0.4 wks	\$0.00	\$0.00	\$0.00	\$1,008.00	\$0.00	\$0.00	\$0.
139	1.3.1.3.6.5	Motion Control	LLNL		0	2.5 wks	\$0.00	\$13,000.00	\$8,140.00	\$21,140.00	\$10,434.20	\$6,347.85	\$37,922.0
140	1.3.1.3.6.5	Hardware	LLNL	M&S	1	0 wks	\$0.00	\$13,000.00	\$0.00	\$13,000.00	\$2,457.00	\$2,318.55	\$17,775.
\neg		LLNL M&S Total		M&S	0	13,000	\$0.00	\$0.00	\$0.00	\$13,000.00	\$0.00	\$0.00	\$0.
441	1.3.1.3.6.5	Hardware	LLNL	ED&I	2	0.5 wks	\$0.00	\$0.00	\$1,260.00	\$1,260.00	\$1,234.80	\$623.70	\$3,118
-		LLNL PCD:Coordinator Associate		ED&I	0	0.5 wks	\$0.00	\$0.00	\$0.00	\$1,260.00	\$0.00	\$0.00	\$0.
42	1.3.1.3.6.5	Assly & Test	LLNL	B&H	2	2 wks	\$0.00	\$0.00	\$6,880.00	\$6,880.00	\$6,742.40	\$3,405.60	\$17,028
\dashv		LLNL Precision Crafts (mach/tech)		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$6,880.00	\$0.00	\$0.00	\$0
143	1.3.1.3.6.6	Attenuator	LLNL		0	10.2 wks	\$0.00	\$12,000.00	\$17,704.00	\$29,704.00	\$19,617.92	\$12,330.48	\$61,652
144	1.3.1.3.6.6	Hardware	LLNL	M&S	2	0 wks	\$0.00	\$12,000.00	\$0.00	\$12,000.00	\$2,268.00	\$3,567.00	\$17,835
_		LLNL M&S Total		M&S	0	12,000	\$0.00	\$0.00	\$0.00	\$12,000.00	\$0.00	\$0.00	\$0
45	1.3.1.3.6.6	Hardware	LLNL	ED&I	2	0.2 wks	\$0.00	\$0.00	\$504.00	\$504.00	\$493.92	\$249.48	\$1,247
45	1.5.1.5.0.0	LLNL PCD:Coordinator Associate	LLINE	ED&I	0	0.2 wks	\$0.00		\$0.00	\$504.00	\$0.00	\$0.00	\$1,247
								\$0.00					
46	1.3.1.3.6.6	Characterization	LLNL	ED&I	2	8 wks	\$0.00	\$0.00	\$12,160.00	\$12,160.00	\$11,916.80	\$6,019.20	\$30,096
		LLNL Physicist - Post Doc		ED&I	0	8 wks	\$0.00	\$0.00	\$0.00	\$12,160.00	\$0.00	\$0.00	\$0
47	1.3.1.3.6.6	Characterization	LLNL	ED&I	2	2 wks	\$0.00	\$0.00	\$5,040.00	\$5,040.00	\$4,939.20	\$2,494.80	\$12,47
		LLNL Mechanical Engineer		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$5,040.00	\$0.00	\$0.00	\$0
448	1.3.1.3.6.7	Controls & Elect	LLNL		0	3.2 wks	\$0.00	\$12,000.00	\$6,864.00	\$18,864.00	\$8,994.72	\$6,964.68	\$34,823.
149	1.3.1.3.6.7	Hardware	LLNL	M&S	2	0 wks	\$0.00	\$12,000.00	\$0.00	\$12,000.00	\$2,268.00	\$3,567.00	\$17,835
\dashv		LLNL M&S Total		M&S	0	12,000	\$0.00	\$0.00	\$0.00	\$12,000.00	\$0.00	\$0.00	\$0
150	1.3.1.3.6.7	Hardware	LLNL	ED&I	2	0.2 wks	\$0.00	\$0.00	\$504.00	\$504.00	\$493.92	\$249.48	\$1,247
\dashv		LLNL PCD:Coordinator Associate		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$504.00	\$0.00	\$0.00	\$0
151	1.3.1.3.6.7	Assly & Test	LLNL	B&H	2	3 wks	\$0.00	\$0.00	\$6,360.00	\$6,360.00	\$6,232.80	\$3,148.20	\$15,741
		LLNL Controls: Technician		B&H	0	3 wks	\$0.00	\$0.00	\$0.00	\$6,360.00	\$0.00	\$0.00	\$0
452	1.3.1.3.6.8	Integ & Test	LLNL		0	8 wks	\$0.00	\$0.00	\$15,840.00	\$15,840.00	\$15,523.20	\$7.840.80	\$39,204
153	1.3.1.3.6.8	Bench Assembly	LLNL	B&H	2	1 wk	\$0.00	\$0.00	\$2,080.00	\$2,080.00	\$2,038.40	\$1,029.60	\$5,148
153	1.3.1.3.0.0	·	LLINL										
		LLNL Mech. Fab: Assembly Tech		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,080.00	\$0.00	\$0.00	\$0
154	1.3.1.3.6.8	Perform Test	LLNL	B&H	2	1 wk	\$0.00	\$0.00	\$2,080.00	\$2,080.00	\$2,038.40	\$1,029.60	\$5,148
		LLNL Mech. Fab: Assembly Tech		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,080.00	\$0.00	\$0.00	\$0
155	1.3.1.3.6.8	Beamline install	LLNL	B&H	2	1 wk	\$0.00	\$0.00	\$2,080.00	\$2,080.00	\$2,038.40	\$1,029.60	\$5,148
		LLNL Mech. Fab: Assembly Tech		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,080.00	\$0.00	\$0.00	\$0
156	1.3.1.3.6.8	Beamline test	LLNL	ED&I	2	3 wks	\$0.00	\$0.00	\$4,560.00	\$4,560.00	\$4,468.80	\$2,257.20	\$11,286
\dashv		LLNL Physicist - Post Doc		ED&I	0	3 wks	\$0.00	\$0.00	\$0.00	\$4,560.00	\$0.00	\$0.00	\$0
157	1.3.1.3.6.8	Beamline test	LLNL	ED&I	2	2 wks	\$0.00	\$0.00	\$5,040.00	\$5,040.00	\$4,939.20	\$2,494.80	\$12,474
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ID 1458	CWBS 1.3.1.3.6.9	Task Name Attenuator	OBS LLNL	PHASE	Risk	Units 10.2 wks	PED (Direct)	M&S (Direct) \$12,000.00	Labor (Direct) \$17,704.00	Direct Cost \$29,704.00	Overhead Cost \$19,617.92	Contingency Cost \$12,330.48	Total Cost \$61,652.4
			LLNL							. ,			
459	1.3.1.3.6.9		LLNL	M&S	2	0 wks	\$0.00	\$12,000.00	\$0.00	\$12,000.00	\$2,268.00	\$3,567.00	\$17,835.0
		LLNL M&S Total		M&S	0	12,000	\$0.00	\$0.00	\$0.00	\$12,000.00	\$0.00	\$0.00	\$0.0
460	1.3.1.3.6.9	Hardware	LLNL	ED&I	2	0.2 wks	\$0.00	\$0.00	\$504.00	\$504.00	\$493.92	\$249.48	\$1,247.
		LLNL PCD:Coordinator Associate		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$504.00	\$0.00	\$0.00	\$0.
461	1.3.1.3.6.9	Characterization	LLNL	ED&I	2	8 wks	\$0.00	\$0.00	\$12,160.00	\$12,160.00	\$11,916.80	\$6,019.20	\$30,096.
		LLNL Physicist - Post Doc		ED&I	0	8 wks	\$0.00	\$0.00	\$0.00	\$12,160.00	\$0.00	\$0.00	\$0.
462	1.3.1.3.6.9	Characterization	LLNL	ED&I	2	2 wks	\$0.00	\$0.00	\$5,040.00	\$5,040.00	\$4,939.20	\$2,494.80	\$12,474
		LLNL Mechanical Engineer		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$5,040.00	\$0.00	\$0.00	\$0.
463	1.3.1.3.6.10	Integ & Test	LLNL		0	2.6 wks	\$0.00	\$0.00	\$5,360.00	\$5,360.00	\$5,252.80	\$2,653.20	\$13,266.
464	1.3.1.3.6.10	-	LLNL	B&H	2	1 wk	\$0.00	\$0.00	\$2,080.00	\$2,080.00	\$2,038.40	\$1,029.60	\$5,148
	1.0.110.0.10	LLNL Mech. Fab: Assembly Tech		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,080.00	\$0.00	\$0.00	\$0.
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165	1.3.1.3.6.10		LLNL	B&H	2	0.4 wks	\$0.00	\$0.00	\$832.00	\$832.00	\$815.36	\$411.84	\$2,059
		LLNL Mech. Fab: Assembly Tech		B&H	0	0.4 wks	\$0.00	\$0.00	\$0.00	\$832.00	\$0.00	\$0.00	\$0
166	1.3.1.3.6.10	Beamline install	LLNL	B&H	2	0.4 wks	\$0.00	\$0.00	\$832.00	\$832.00	\$815.36	\$411.84	\$2,059
		LLNL Mech. Fab: Assembly Tech		B&H	0	0.4 wks	\$0.00	\$0.00	\$0.00	\$832.00	\$0.00	\$0.00	\$0
167	1.3.1.3.6.10	Beamline test	LLNL	ED&I	2	0.4 wks	\$0.00	\$0.00	\$608.00	\$608.00	\$595.84	\$300.96	\$1,504
		LLNL Physicist - Post Doc		ED&I	0	0.4 wks	\$0.00	\$0.00	\$0.00	\$608.00	\$0.00	\$0.00	\$0
468	1.3.1.3.6.10	Beamline test	LLNL	ED&I	2	0.4 wks	\$0.00	\$0.00	\$1,008.00	\$1,008.00	\$987.84	\$498.96	\$2,494
		LLNL AD: Mech/Vacuum Engineer		ED&I	0	0.4 wks	\$0.00	\$0.00	\$0.00	\$1,008.00	\$0.00	\$0.00	\$0
169	1.3.1.3.7	Low Energy Mirror System			0	58.7 wks	\$0.00	\$441,000.00	\$155,244.00	\$596,244.00	\$235,488.12	\$186,055.43	\$1,017,787
470	1.3.1.3.7.1	Precision Motion	LLNL		0	6.5 wks	\$0.00	\$32,000.00	\$21,900.00	\$53,900.00	\$27,510.00	\$16,547.70	\$97,957.
471	1.3.1.3.7.1	Hardware	LLNL	M&S	1	0 wks	\$0.00	\$32,000.00	\$0.00	\$32,000.00	\$6,048.00	\$5,707.20	\$43,755
		LLNL M&S Total		M&S	0	32,000	\$0.00	\$0.00	\$0.00	\$32,000.00	\$0.00	\$0.00	\$0
172	1.3.1.3.7.1	Hardware	LLNL	ED&I	2	0.5 wks	\$0.00	\$0.00	\$1,260.00	\$1,260.00	\$1,234.80	\$623.70	\$3,118
*12	1.5.1.5.7.1		LLINL		-								
		LLNL PCD:Coordinator Associate		ED&I	0	0.5 wks	\$0.00	\$0.00	\$0.00	\$1,260.00	\$0.00	\$0.00	\$0
173	1.3.1.3.7.1	Assly & Test	LLNL	B&H	2	6 wks	\$0.00	\$0.00	\$20,640.00	\$20,640.00	\$20,227.20	\$10,216.80	\$51,084
		LLNL Precision Crafts (mach/tech)		B&H	0	6 wks	\$0.00	\$0.00	\$0.00	\$20,640.00	\$0.00	\$0.00	\$0
174	1.3.1.3.7.2	Optic	LLNL		0	18 wks	\$0.00	\$195,000.00	\$46,560.00	\$241,560.00	\$82,483.80	\$81,010.95	\$405,054
175	1.3.1.3.7.2	Hardware	LLNL	M&S	2	0 wks	\$0.00	\$195,000.00	\$0.00	\$195,000.00	\$36,855.00	\$57,963.75	\$289,818
		LLNL M&S Total		M&S	0	195,000	\$0.00	\$0.00	\$0.00	\$195,000.00	\$0.00	\$0.00	\$0
176	1.3.1.3.7.2	Hardware	LLNL	ED&I	2	2 wks	\$0.00	\$0.00	\$6,880.00	\$6,880.00	\$6,742.40	\$3,405.60	\$17,028
		LLNL Precision Engineer		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$6,880.00	\$0.00	\$0.00	\$0
477	1.3.1.3.7.2	Characterization	LLNL	ED&I	2	8 wks	\$0.00	\$0.00	\$12,160.00	\$12,160.00	\$11,916.80	\$6,019.20	\$30,096
		LLNL Physicist - Post Doc		ED&I	0	8 wks	\$0.00	\$0.00	\$0.00	\$12,160.00	\$0.00	\$0.00	\$0.

ID		Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
478	1.3.1.3.7.2	Characterization	LLNL	ED&I	2	8 wks	\$0.00	\$0.00	\$27,520.00	\$27,520.00	\$26,969.60	\$13,622.40	\$68,112.
		LLNL Precision Engineer		ED&I	0	8 wks	\$0.00	\$0.00	\$0.00	\$27,520.00	\$0.00	\$0.00	\$0.
479	1.3.1.3.7.3	Controls & Elect	LLNL		0	3.2 wks	\$0.00	\$42,000.00	\$6,864.00	\$48,864.00	\$14,664.72	\$15,882.18	\$79,410.
180	1.3.1.3.7.3	Hardware	LLNL	M&S	2	0 wks	\$0.00	\$42,000.00	\$0.00	\$42,000.00	\$7,938.00	\$12,484.50	\$62,422
		LLNL M&S Total		M&S	0	42,000	\$0.00	\$0.00	\$0.00	\$42,000.00	\$0.00	\$0.00	\$0
481	1.3.1.3.7.3	Hardware	LLNL	ED&I	2	0.2 wks	\$0.00	\$0.00	\$504.00	\$504.00	\$493.92	\$249.48	\$1,247
		LLNL PCD:Coordinator Associate		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$504.00	\$0.00	\$0.00	\$0
482	1.3.1.3.7.3	Assly & Test	LLNL	B&H	2	3 wks	\$0.00	\$0.00	\$6,360.00	\$6,360.00	\$6,232.80	\$3,148.20	\$15,741
		LLNL Controls: Technician		B&H	0	3 wks	\$0.00	\$0.00	\$0.00	\$6,360.00	\$0.00	\$0.00	\$0
483	1.3.1.3.7.4	Integ & Test	LLNL		0	17 wks	\$0.00	\$0.00	\$50,800.00	\$50,800.00	\$49,784.00	\$25,146.00	\$125,730
184	1.3.1.3.7.4	Bench Assembly	LLNL	B&H	2	3 wks	\$0.00	\$0.00	\$10,320.00	\$10,320.00	\$10,113.60	\$5,108.40	\$25,542
\dashv		LLNL Precision Crafts (mach/tech)		B&H	0	3 wks	\$0.00	\$0.00	\$0.00	\$10,320.00	\$0.00	\$0.00	\$0
485	1.3.1.3.7.4	Perform Test	LLNL	B&H	2	3 wks	\$0.00	\$0.00	\$10,320.00	\$10,320.00	\$10,113.60	\$5,108.40	\$25,542
		LLNL Precision Crafts (mach/tech)		B&H	0	3 wks	\$0.00	\$0.00	\$0.00	\$10,320.00	\$0.00	\$0.00	\$0
86	1.3.1.3.7.4	Beamline install	LLNL	B&H	2	3 wks	\$0.00	\$0.00	\$10,320.00	\$10,320.00	\$10,113.60	\$5,108.40	\$25,542
\neg		LLNL Precision Crafts (mach/tech)		B&H	0	3 wks	\$0.00	\$0.00	\$0.00	\$10,320.00	\$0.00	\$0.00	\$0
187	1.3.1.3.7.4	Beamline test	LLNL	ED&I	2	4 wks	\$0.00	\$0.00	\$6,080.00	\$6,080.00	\$5,958.40	\$3,009.60	\$15,048
		LLNL Physicist - Post Doc		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$6,080.00	\$0.00	\$0.00	\$0
488	1.3.1.3.7.4	Beamline test	LLNL	ED&I	2	4 wks	\$0.00	\$0.00	\$13,760.00	\$13,760.00	\$13,484.80	\$6,811.20	\$34,056
		LLNL Precision Engineer		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$13,760.00	\$0.00	\$0.00	\$0
489	1.3.1.3.7.5	Tank	LLNL		0	4 wks	\$0.00	\$40,000.00	\$8,320.00	\$48,320.00	\$15,713.60	\$12,441.40	\$76,475
490	1.3.1.3.7.5	Fabrication	LLNL	M&S	1	0 wks	\$0.00	\$30,000.00	\$0.00	\$30,000.00	\$5,670.00	\$5,350.50	\$41,020
		LLNL M&S Total		M&S	0	30,000	\$0.00	\$0.00	\$0.00	\$30,000.00	\$0.00	\$0.00	\$0
491	1.3.1.3.7.5	Accept. Test	LLNL	M&S	2	0 wks	\$0.00	\$10,000.00	\$0.00	\$10,000.00	\$1,890.00	\$2,972.50	\$14,862
		LLNL M&S Total		M&S	0	10,000	\$0.00	\$0.00	\$0.00	\$10,000.00	\$0.00	\$0.00	\$0
492	1.3.1.3.7.5	Installation	LLNL	B&H	2	4 wks	\$0.00	\$0.00	\$8,320.00	\$8,320.00	\$8,153.60	\$4,118.40	\$20,592
		LLNL Mech. Fab: Assembly Tech		B&H	0	4 wks	\$0.00	\$0.00	\$0.00	\$8,320.00	\$0.00	\$0.00	\$0
493	1.3.1.3.7.6	Vacuum	LLNL		0	9 wks	\$0.00	\$122,000.00	\$18,720.00	\$140,720.00	\$41,403.60	\$31,025.10	\$213,148
494	1.3.1.3.7.6	Pumps	LLNL	M&S	1	0 wks	\$0.00	\$108,000.00	\$0.00	\$108,000.00	\$20,412.00	\$19,261.80	\$147,673
		LLNL M&S Total		M&S	0	108,000	\$0.00	\$0.00	\$0.00	\$108,000.00	\$0.00	\$0.00	\$0
495	1.3.1.3.7.6	Gauges	LLNL	M&S	1	0 wks	\$0.00	\$6,000.00	\$0.00	\$6,000.00	\$1,134.00	\$1,070.10	\$8,204
		LLNL M&S Total		M&S	0	6,000	\$0.00	\$0.00	\$0.00	\$6,000.00	\$0.00	\$0.00	\$0
496	1.3.1.3.7.6	Hardware	LLNL	M&S	1	0 wks	\$0.00	\$8,000.00	\$0.00	\$8,000.00	\$1,512.00	\$1,426.80	\$10,938
		LLNL M&S Total		M&S	0	8,000	\$0.00	\$0.00	\$0.00	\$8,000.00	\$0.00	\$0.00	\$0
497	1.3.1.3.7.6	Installation	LLNL	B&H	2	6 wks	\$0.00	\$0.00	\$12,480.00	\$12,480.00	\$12,230.40	\$6,177.60	\$30,888

ID	CWBS	Task Name LLNL Mech. Fab: Assembly Tech	OBS	PHASE B&H	Risk	Units 6 wks	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost \$12,480.00	Overhead Cost \$0.00	Contingency Cost	Total Cost
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498	1.3.1.3.7.6	Leak check	LLNL	B&H	2	3 wks	\$0.00	\$0.00	\$6,240.00	\$6,240.00	\$6,115.20	\$3,088.80	\$15,444.0
		LLNL Mech. Fab: Assembly Tech		B&H	0	3 wks	\$0.00	\$0.00	\$0.00	\$6,240.00	\$0.00	\$0.00	\$0.0
499	1.3.1.3.7.7	Stand	LLNL		0	1 wk	\$0.00	\$10,000.00	\$2,080.00	\$12,080.00	\$3,928.40	\$4,002.10	\$20,010.5
1500	1.3.1.3.7.7	Fabrication	LLNL	M&S	2	0 wks	\$0.00	\$10,000.00	\$0.00	\$10,000.00	\$1,890.00	\$2,972.50	\$14,862.5
		LLNL M&S Total		M&S	0	10,000	\$0.00	\$0.00	\$0.00	\$10,000.00	\$0.00	\$0.00	\$0.0
501	1.3.1.3.7.7	Installation	LLNL	B&H	2	1 wk	\$0.00	\$0.00	\$2,080.00	\$2,080.00	\$2,038.40	\$1,029.60	\$5,148.0
		LLNL Mech. Fab: Assembly Tech		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,080.00	\$0.00	\$0.00	\$0.0
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1502	1.3.1.4	End Station Optical Systems			0	92.6 wks	\$0.00	\$718,000.00	\$243,824.00	\$961,824.00	\$374,649.52	\$295,802.04	\$1,632,275.5
1503	1.3.1.4.1	K-B Mirror System A			0	21.7 wks	\$0.00	\$284,000.00	\$66,084.00	\$350,084.00	\$118,438.32	\$117,130.58	\$585,652.9
1504	1.3.1.4.1.1	Precision Motion	LLNL		0	6.5 wks	\$0.00	\$47,000.00	\$21,900.00	\$68,900.00	\$30,345.00	\$24,811.25	\$124,056.2
1505	1.3.1.4.1.1	Hardware	LLNL	M&S	2	0 wks	\$0.00	\$47,000.00	\$0.00	\$47,000.00	\$8,883.00	\$13,970.75	\$69,853.7
\dashv		LLNL M&S Total		M&S	0	47,000	\$0.00	\$0.00	\$0.00	\$47,000.00	\$0.00	\$0.00	\$0.0
1506	1.3.1.4.1.1	Hardware	LLNL	ED&I	2	0.5 wks	\$0.00	\$0.00	\$1,260.00	\$1,260.00	\$1,234.80	\$623.70	\$3,118.5
		LLNL PCD:Coordinator Associate		ED&I	0	0.5 wks	\$0.00	\$0.00	\$0.00	\$1,260.00	\$0.00	\$0.00	\$0.0
507	1.3.1.4.1.1		LLNL	B&H	2	6 wks	\$0.00	\$0.00	\$20,640.00	\$20.640.00	\$20.227.20	\$10,216.80	\$51,084.
1307	1.3.1.4.1.1	,	LLINL				• • • • • • • • • • • • • • • • • • • •	,,,,,		,.			
		LLNL Precision Crafts (mach/tech)		B&H	0	6 wks	\$0.00	\$0.00	\$0.00	\$20,640.00	\$0.00	\$0.00	\$0.0
1508	1.3.1.4.1.2	Optic	LLNL		0	0 wks	\$0.00	\$195,000.00	\$0.00	\$195,000.00	\$36,855.00	\$57,963.75	\$289,818.7
1509	1.3.1.4.1.2	Hardware	LLNL	M&S	2	0 wks	\$0.00	\$195,000.00	\$0.00	\$195,000.00	\$36,855.00	\$57,963.75	\$289,818.7
		LLNL M&S Total		M&S	0	195,000	\$0.00	\$0.00	\$0.00	\$195,000.00	\$0.00	\$0.00	\$0.0
1510	1.3.1.4.1.3	Controls & Elect	LLNL		0	6.2 wks	\$0.00	\$42,000.00	\$13,224.00	\$55,224.00	\$20,897.52	\$19,030.38	\$95,151.9
1511	1.3.1.4.1.3	Hardware (includes LVDT's)	LLNL	M&S	2	0 wks	\$0.00	\$42,000.00	\$0.00	\$42,000.00	\$7,938.00	\$12,484.50	\$62,422.5
		LLNL M&S Total		M&S	0	42,000	\$0.00	\$0.00	\$0.00	\$42,000.00	\$0.00	\$0.00	\$0.0
1512	1.3.1.4.1.3		LLNL	ED&I	2	0.2 wks	\$0.00	\$0.00	\$504.00	\$504.00	\$493.92	\$249.48	\$1,247.4
1012	1.0.1.4.1.0	, , , ,	LLINE				• • • • • • • • • • • • • • • • • • • •						
		LLNL PCD:Coordinator Associate		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$504.00	\$0.00	\$0.00	\$0.0
1513	1.3.1.4.1.3	Assly & Test	LLNL	B&H	2	6 wks	\$0.00	\$0.00	\$12,720.00	\$12,720.00	\$12,465.60	\$6,296.40	\$31,482.0
		LLNL Controls: Technician		B&H	0	6 wks	\$0.00	\$0.00	\$0.00	\$12,720.00	\$0.00	\$0.00	\$0.0
1514	1.3.1.4.1.4	Integ & Test	LLNL		0	9 wks	\$0.00	\$0.00	\$30,960.00	\$30,960.00	\$30,340.80	\$15,325.20	\$76,626.0
1515	1.3.1.4.1.4	Bench Assembly	LLNL	B&H	2	3 wks	\$0.00	\$0.00	\$10,320.00	\$10,320.00	\$10,113.60	\$5,108.40	\$25,542.0
		LLNL Precision Crafts (mach/tech)		B&H	0	3 wks	\$0.00	\$0.00	\$0.00	\$10,320.00	\$0.00	\$0.00	\$0.0
516	1.3.1.4.1.4	Perform Test	LLNL	B&H	2	3 wks	\$0.00	\$0.00	\$10,320.00	\$10,320.00	\$10,113.60	\$5,108.40	\$25,542.0
-		LLNL Precision Crafts (mach/tech)		B&H	0	3 wks	\$0.00	\$0.00	\$0.00	\$10,320.00	\$0.00	\$0.00	\$0.0
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517	1.3.1.4.1.4		LLNL	B&H	2	3 wks	\$0.00	\$0.00	\$10,320.00	\$10,320.00	\$10,113.60	\$5,108.40	\$25,542.0
		LLNL Precision Crafts (mach/tech)		B&H	0	3 wks	\$0.00	\$0.00	\$0.00	\$10,320.00	\$0.00	\$0.00	\$0.0
1518	1.3.1.4.2	Optics Tank A2 1			0	21.9 wks	\$0.00	\$228,000.00	\$61,220.00	\$289,220.00	\$103,087.60	\$80.588.42	\$472,896.0

ID		Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
4519	1.3.1.4.2.1	Motion & Mech	LLNL		0	3.5 wks	\$0.00	\$84,000.00	\$11,580.00	\$95,580.00	\$27,224.40	\$28,442.00	\$151,246.4
1520	1.3.1.4.2.1	Hardware	LLNL	M&S	2	0 wks	\$0.00	\$56,000.00	\$0.00	\$56,000.00	\$10,584.00	\$16,646.00	\$83,230.0
		LLNL M&S Total		M&S	0	56,000	\$0.00	\$0.00	\$0.00	\$56,000.00	\$0.00	\$0.00	\$0.0
521	1.3.1.4.2.1	Hardware	LLNL	ED&I	2	0.5 wks	\$0.00	\$0.00	\$1,260.00	\$1,260.00	\$1,234.80	\$623.70	\$3,118.5
		LLNL PCD:Coordinator Associate		ED&I	0	0.5 wks	\$0.00	\$0.00	\$0.00	\$1,260.00	\$0.00	\$0.00	\$0.0
522	1.3.1.4.2.1	Sample holder	LLNL	M&S	2	0 wks	\$0.00	\$9,000.00	\$0.00	\$9,000.00	\$1,701.00	\$2,675.25	\$13,376.2
\dashv		LLNL M&S Total		M&S	0	9,000	\$0.00	\$0.00	\$0.00	\$9,000.00	\$0.00	\$0.00	\$0.0
523	1.3.1.4.2.1	Optical Table	LLNL	M&S	1	0 wks	\$0.00	\$19,000.00	\$0.00	\$19,000.00	\$3,591.00	\$3,388.65	\$25,979.
-		LLNL M&S Total		M&S	0	19,000	\$0.00	\$0.00	\$0.00	\$19,000.00	\$0.00	\$0.00	\$0.0
524	1.3.1.4.2.1	Assly & Test	LLNL	B&H	2	3 wks	\$0.00	\$0.00	\$10,320.00	\$10,320.00	\$10,113.60	\$5,108.40	\$25,542.0
-		LLNL Precision Crafts (mach/tech)		B&H	0	3 wks	\$0.00	\$0.00	\$0.00	\$10,320.00	\$0.00	\$0.00	\$0.0
525	1.3.1.4.2.2	Controls & Elect	LLNL		0	3.2 wks	\$0.00	\$23,000.00	\$6,864.00	\$29,864.00	\$11,073.72	\$10,234.43	\$51,172.1
526	1.3.1.4.2.2	Hardware	LLNL	M&S	2	0 wks	\$0.00	\$23,000.00	\$0.00	\$23,000.00	\$4,347.00	\$6,836.75	\$34,183.7
-		LLNL M&S Total		M&S	0	23,000	\$0.00	\$0.00	\$0.00	\$23,000.00	\$0.00	\$0.00	\$0.0
527	1.3.1.4.2.2	Hardware	LLNL	ED&I	2	0.2 wks	\$0.00	\$0.00	\$504.00	\$504.00	\$493.92	\$249.48	\$1,247.
	-	LLNL PCD:Coordinator Associate		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$504.00	\$0.00	\$0.00	\$0.
528	1.3.1.4.2.2	Assly & Test	LLNL	B&H	2	3 wks	\$0.00	\$0.00	\$6,360.00	\$6,360.00	\$6,232.80	\$3,148.20	\$15,741.
		LLNL Controls: Technician	22.12	B&H	0	3 wks	\$0.00	\$0.00	\$0.00	\$6,360.00	\$0.00	\$0.00	\$0.
529	1.3.1.4.2.3	Integ & Test	LLNL	Dan	0	7 wks	\$0.00	\$0.00	\$24,080.00	\$24,080.00	\$23,598.40	\$11,919.60	\$59,598.0
530		Č		B&H			\$0.00						
530	1.3.1.4.2.3	Bench Assembly	LLNL		2	3 wks	*****	\$0.00	\$10,320.00	\$10,320.00	\$10,113.60	\$5,108.40	\$25,542.
		LLNL Precision Crafts (mach/tech)		B&H	0	3 wks	\$0.00	\$0.00	\$0.00	\$10,320.00	\$0.00	\$0.00	\$0.
531	1.3.1.4.2.3	Perform Test	LLNL	B&H	2	2 wks	\$0.00	\$0.00	\$6,880.00	\$6,880.00	\$6,742.40	\$3,405.60	\$17,028.
		LLNL Precision Crafts (mach/tech)		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$6,880.00	\$0.00	\$0.00	\$0.
532	1.3.1.4.2.3	Beamline install	LLNL	B&H	2	2 wks	\$0.00	\$0.00	\$6,880.00	\$6,880.00	\$6,742.40	\$3,405.60	\$17,028.
		LLNL Precision Crafts (mach/tech)		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$6,880.00	\$0.00	\$0.00	\$0.
533	1.3.1.4.2.4	Tank	LLNL		0	4 wks	\$0.00	\$40,000.00	\$9,120.00	\$49,120.00	\$16,497.60	\$12,837.40	\$78,455.0
534	1.3.1.4.2.4	Fabrication	LLNL	M&S	1	0 wks	\$0.00	\$30,000.00	\$0.00	\$30,000.00	\$5,670.00	\$5,350.50	\$41,020.
		LLNL M&S Total		M&S	0	30,000	\$0.00	\$0.00	\$0.00	\$30,000.00	\$0.00	\$0.00	\$0.
535	1.3.1.4.2.4	Accept. Test	LLNL	M&S	2	0 wks	\$0.00	\$10,000.00	\$0.00	\$10,000.00	\$1,890.00	\$2,972.50	\$14,862.
\dashv		LLNL M&S Total		M&S	0	10,000	\$0.00	\$0.00	\$0.00	\$10,000.00	\$0.00	\$0.00	\$0.
536	1.3.1.4.2.4	Installation	LLNL	B&H	2	4 wks	\$0.00	\$0.00	\$9,120.00	\$9,120.00	\$8,937.60	\$4,514.40	\$22,572.
\dashv		LLNL Mech. Fab: Plating & Cleaning		B&H	0	4 wks	\$0.00	\$0.00	\$0.00	\$9,120.00	\$0.00	\$0.00	\$0.
537	1.3.1.4.2.5	Vacuum	LLNL		0	4 wks	\$0.00	\$71,000.00	\$9,120.00	\$80,120.00	\$22,356.60	\$15,371.49	\$117,848.
538	1.3.1.4.2.5	Pumps	LLNL	M&S	1	0 wks	\$0.00	\$57,000.00	\$0.00	\$57,000.00	\$10,773.00	\$10,165.95	\$77,938.
		LLNL M&S Total		M&S	0	57,000	\$0.00	\$0.00	\$0.00	\$57,000.00	\$0.00	\$0.00	\$0.

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ID		Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
539	1.3.1.4.2.5	Gauges	LLNL	M&S	1	0 wks	\$0.00	\$6,000.00	\$0.00	\$6,000.00	\$1,134.00	\$1,070.10	\$8,204.
\dashv		LLNL M&S Total		M&S	0	6,000	\$0.00	\$0.00	\$0.00	\$6,000.00	\$0.00	\$0.00	\$0.
540	1.3.1.4.2.5	Hardware	LLNL	M&S	1	0 wks	\$0.00	\$8,000.00	\$0.00	\$8,000.00	\$1,512.00	\$1,426.80	\$10,938
		LLNL M&S Total		M&S	0	8,000	\$0.00	\$0.00	\$0.00	\$8,000.00	\$0.00	\$0.00	\$0.
41	1.3.1.4.2.5	Installation	LLNL	B&H	1	1 wk	\$0.00	\$0.00	\$2,280.00	\$2,280.00	\$2,234.40	\$677.16	\$5,191
\dashv		LLNL Mech. Fab: Plating & Cleaning		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,280.00	\$0.00	\$0.00	\$0
42	1.3.1.4.2.5	Leak check	LLNL	B&H	1	3 wks	\$0.00	\$0.00	\$6,840.00	\$6,840.00	\$6,703.20	\$2,031.48	\$15,574
		LLNL Mech. Fab: Plating & Cleaning		B&H	0	3 wks	\$0.00	\$0.00	\$0.00	\$6,840.00	\$0.00	\$0.00	\$0
43	1.3.1.4.2.6	Stand	LLNL		0	0.2 wks	\$0.00	\$10,000.00	\$456.00	\$10,456.00	\$2,336.88	\$1,783.50	\$14,576
44	1.3.1.4.2.6	Fabrication	LLNL	M&S	1	0 wks	\$0.00	\$10,000.00	\$0.00	\$10,000.00	\$1,890.00	\$1,783.50	\$13,673
\dashv		LLNL M&S Total		M&S	0	10,000	\$0.00	\$0.00	\$0.00	\$10,000.00	\$0.00	\$0.00	\$0
45	1.3.1.4.2.6	Installation	LLNL	B&H	0	0.2 wks	\$0.00	\$0.00	\$456.00	\$456.00	\$446.88	\$0.00	\$902
\dashv		LLNL Mech. Fab: Plating & Cleaning		B&H	1	0.2 wks	\$0.00	\$0.00	\$0.00	\$456.00	\$0.00	\$0.00	\$0
46	1.3.1.4.3	Optics Tank B2 1			0	9 wks	\$0.00	\$121,000.00	\$20,520.00	\$141,520.00	\$42,978.60	\$27,674.79	\$212,173
47	1.3.1.4.3.1	Tank	LLNL		0	4 wks	\$0.00	\$40,000.00	\$9,120.00	\$49,120.00	\$16,497.60	\$9,842.64	\$75,460
48	1.3.1.4.3.1	Fabrication	LLNL	M&S	1	0 wks	\$0.00	\$30,000.00	\$0.00	\$30,000.00	\$5,670.00	\$5,350.50	\$41,020
\dashv		LLNL M&S Total		M&S	0	30,000	\$0.00	\$0.00	\$0.00	\$30,000.00	\$0.00	\$0.00	\$
49	1.3.1.4.3.1	Accept. Test	LLNL	M&S	1	0 wks	\$0.00	\$10,000.00	\$0.00	\$10,000.00	\$1,890.00	\$1,783.50	\$13,67
\dashv		LLNL M&S Total		M&S	0	10,000	\$0.00	\$0.00	\$0.00	\$10,000.00	\$0.00	\$0.00	\$0
50	1.3.1.4.3.1	Installation	LLNL	B&H	1	4 wks	\$0.00	\$0.00	\$9,120.00	\$9,120.00	\$8,937.60	\$2,708.64	\$20,76
\dashv		LLNL Mech. Fab: Plating & Cleaning		B&H	0	4 wks	\$0.00	\$0.00	\$0.00	\$9,120.00	\$0.00	\$0.00	\$
51	1.3.1.4.3.2	Vacuum	LLNL		0	4 wks	\$0.00	\$71,000.00	\$9,120.00	\$80,120.00	\$22,356.60	\$15,371.49	\$117,848
52	1.3.1.4.3.2	Pumps	LLNL	M&S	1	0 wks	\$0.00	\$57,000.00	\$0.00	\$57,000.00	\$10,773.00	\$10,165.95	\$77,93
\dashv		LLNL M&S Total		M&S	0	57,000	\$0.00	\$0.00	\$0.00	\$57,000.00	\$0.00	\$0.00	\$6
53	1.3.1.4.3.2	Gauges	LLNL	M&S	1	0 wks	\$0.00	\$6,000.00	\$0.00	\$6,000.00	\$1,134.00	\$1,070.10	\$8,20
\dashv		LLNL M&S Total		M&S	0	6,000	\$0.00	\$0.00	\$0.00	\$6,000.00	\$0.00	\$0.00	\$6
54	1.3.1.4.3.2	Hardware	LLNL	M&S	1	0 wks	\$0.00	\$8,000.00	\$0.00	\$8,000.00	\$1,512.00	\$1,426.80	\$10,938
\dashv		LLNL M&S Total		M&S	0	8,000	\$0.00	\$0.00	\$0.00	\$8,000.00	\$0.00	\$0.00	\$6
55	1.3.1.4.3.2	Installation	LLNL	B&H	1	1 wk	\$0.00	\$0.00	\$2,280.00	\$2,280.00	\$2,234.40	\$677.16	\$5,19
\dashv		LLNL Mech. Fab: Plating & Cleaning		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,280.00	\$0.00	\$0.00	\$
56	1.3.1.4.3.2	Leak check	LLNL	B&H	1	3 wks	\$0.00	\$0.00	\$6,840.00	\$6,840.00	\$6,703.20	\$2,031.48	\$15,57
\dashv		LLNL Mech. Fab: Plating & Cleaning		B&H	0	3 wks	\$0.00	\$0.00	\$0.00	\$6,840.00	\$0.00	\$0.00	\$0
57	1.3.1.4.3.3	Stand	LLNL		0	1 wk	\$0.00	\$10,000.00	\$2,280.00	\$12,280.00	\$4,124.40	\$2,460.66	\$18,865
58	1.3.1.4.3.3	Fabrication	LLNL	M&S	1	0 wks	\$0.00	\$10,000.00	\$0.00	\$10,000.00	\$1,890.00	\$1,783.50	\$13,67
\dashv		LLNL M&S Total		M&S	0	10.000	\$0.00	\$0.00	\$0.00	\$10,000.00	\$0.00	\$0.00	\$0

		Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
559 1	1.3.1.4.3.3	Installation	LLNL	B&H	1	1 wk	\$0.00	\$0.00	\$2,280.00	\$2,280.00	\$2,234.40	\$677.16	\$5,191.
		LLNL Mech. Fab: Plating & Cleaning		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,280.00	\$0.00	\$0.00	\$0.
560	1.3.1.4.4	Refractive Lenses			0	40 wks	\$0.00	\$85,000.00	\$96,000.00	\$181,000.00	\$110,145.00	\$70,408.25	\$361,553.
61 1 .	.3.1.4.4.1	Diamond Turned Form	LLNL		0	12 wks	\$0.00	\$24,000.00	\$36,440.00	\$60,440.00	\$40,247.20	\$22,793.80	\$123,481.
62 1	1.3.1.4.4.1	Tool	LLNL	M&S	1	0 wks	\$0.00	\$18,000.00	\$0.00	\$18,000.00	\$3,402.00	\$3,210.30	\$24,612
		LLNL M&S Total		M&S	0	18,000	\$0.00	\$0.00	\$0.00	\$18,000.00	\$0.00	\$0.00	\$0
63 1	1.3.1.4.4.1	Blanks	LLNL	M&S	1	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$378.00	\$356.70	\$2,734
		LLNL M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0
64 1	1.3.1.4.4.1	Blank Preperation	LLNL	B&H	2	2 wks	\$0.00	\$0.00	\$4,560.00	\$4,560.00	\$4,468.80	\$2,257.20	\$11,286
		LLNL Mech. Fab: Machine Shop		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,560.00	\$0.00	\$0.00	\$0
65 1	1.3.1.4.4.1	Diamond turning fixture parts	LLNL	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$378.00	\$594.50	\$2,972
05 1	1.3.1.4.4.1	- '	LLINL										
		LLNL M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0
66 1	1.3.1.4.4.1	Diamond turning fixture fabrication	LLNL	B&H	2	2 wks	\$0.00	\$0.00	\$6,880.00	\$6,880.00	\$6,742.40	\$3,405.60	\$17,02
		LLNL Precision Crafts (mach/tech)		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$6,880.00	\$0.00	\$0.00	\$
67 1	1.3.1.4.4.1	Diamond Turning	LLNL	B&H	2	6 wks	\$0.00	\$0.00	\$20,640.00	\$20,640.00	\$20,227.20	\$10,216.80	\$51,08
		LLNL Precision Crafts (mach/tech)		B&H	0	6 wks	\$0.00	\$0.00	\$0.00	\$20,640.00	\$0.00	\$0.00	\$
68 1	1.3.1.4.4.1	Form mount materials	LLNL	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$378.00	\$594.50	\$2,97
		LLNL M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$
69 1	1.3.1.4.4.1	Form mount labor	LLNL	B&H	2	1 wk	\$0.00	\$0.00	\$2,280.00	\$2,280.00	\$2,234.40	\$1,128.60	\$5,64
		LLNL Mech. Fab: Machine Shop		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,280.00	\$0.00	\$0.00	\$
70 1	1.3.1.4.4.1	Assemble form to mount	LLNL	B&H	2	1 wk	\$0.00	\$0.00	\$2,080.00	\$2,080.00	\$2,038.40	\$1,029.60	\$5,14
		LLNL Mech. Fab: Assembly Tech		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,080.00	\$0.00	\$0.00	\$0
71 1.	.3.1.4.4.2	Press	LLNL		0	4 wks	\$0.00	\$14,000.00	\$8,920.00	\$22,920.00	\$11,387.60	\$8,576.90	\$42,884
	1.3.1.4.4.2	Refurbish Gloce Box Parts	LLNL	M&S	2	0 wks	\$0.00	\$12,000.00	\$0.00	\$12,000.00	\$2,268.00	\$3,567.00	\$17,83
		LLNL M&S Total		M&S	0	12,000	\$0.00	\$0.00	\$0.00	\$12,000.00	\$0.00	\$0.00	\$17,00
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73 1	1.3.1.4.4.2	Refurbish Gloce Box Labor	LLNL	B&H	2	2 wks	\$0.00	\$0.00	\$4,560.00	\$4,560.00	\$4,468.80	\$2,257.20	\$11,28
		LLNL Mech. Fab: Plating & Cleaning		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,560.00	\$0.00	\$0.00	\$
74 1	1.3.1.4.4.2	Press Parts	LLNL	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$378.00	\$594.50	\$2,97
		LLNL M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$
75 1	1.3.1.4.4.2	Press Machining	LLNL	B&H	2	1 wk	\$0.00	\$0.00	\$2,280.00	\$2,280.00	\$2,234.40	\$1,128.60	\$5,64
		LLNL Mech. Fab: Machine Shop		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,280.00	\$0.00	\$0.00	\$
76 1	1.3.1.4.4.2	Press Assembly	LLNL	B&H	2	1 wk	\$0.00	\$0.00	\$2,080.00	\$2,080.00	\$2,038.40	\$1,029.60	\$5,14
		LLNL Mech. Fab: Assembly Tech		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,080.00	\$0.00	\$0.00	\$
77 1.	.3.1.4.4.3	Lens Mount	LLNL		0	4 wks	\$0.00	\$5,000.00	\$8,320.00	\$13,320.00	\$9,098.60	\$5,604.65	\$28,02
78 1	1.3.1.4.4.3	Material	LLNL	M&S	2	0 wks	\$0.00	\$5,000.00	\$0.00	\$5,000,00	\$945.00	\$1,486,25	\$7,43

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ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		LLNL M&S Total		M&S	0	5,000	\$0.00	\$0.00	\$0.00	\$5,000.00	\$0.00	\$0.00	\$0.
579	1.3.1.4.4.3	Machining	LLNL	B&H	2	2 wks	\$0.00	\$0.00	\$4,160.00	\$4,160.00	\$4,076.80	\$2,059.20	\$10,296.
\neg		LLNL Mech. Fab: Assembly Tech		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,160.00	\$0.00	\$0.00	\$0.
580	1.3.1.4.4.3	Assembly	LLNL	B&H	2	2 wks	\$0.00	\$0.00	\$4,160.00	\$4,160.00	\$4,076.80	\$2,059.20	\$10,296.
\dashv		LLNL Mech. Fab: Assembly Tech		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,160.00	\$0.00	\$0.00	\$0.
581	1.3.1.4.4.4	Lens Fabrication	LLNL		0	12 wks	\$0.00	\$22,000.00	\$25,360.00	\$47,360.00	\$29,010.80	\$19,092.70	\$95,463
582	1.3.1.4.4.4	Material	LLNL	M&S	2	0 wks	\$0.00	\$22,000.00	\$0.00	\$22,000.00	\$4,158.00	\$6,539.50	\$32,697
		LLNL M&S Total		M&S	0	22,000	\$0.00	\$0.00	\$0.00	\$22,000.00	\$0.00	\$0.00	\$0
83	1.3.1.4.4.4	Pressing	LLNL	B&H	2	6 wks	\$0.00	\$0.00	\$12,480.00	\$12,480.00	\$12,230.40	\$6,177.60	\$30,888
		LLNL Mech. Fab: Assembly Tech		B&H	0	6 wks	\$0.00	\$0.00	\$0.00	\$12,480.00	\$0.00	\$0.00	\$0
584	1.3.1.4.4.4	Inspection	LLNL	B&H	2	2 wks	\$0.00	\$0.00	\$4,560.00	\$4,560.00	\$4,468.80	\$2,257.20	\$11,286
\dashv		LLNL Metrology:Eng.& Surveyors		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,560.00	\$0.00	\$0.00	\$0
585	1.3.1.4.4.4	Assembly	LLNL	B&H	2	4 wks	\$0.00	\$0.00	\$8,320.00	\$8,320.00	\$8,153.60	\$4,118.40	\$20,592
\dashv		LLNL Mech. Fab: Assembly Tech		B&H	0	4 wks	\$0.00	\$0.00	\$0.00	\$8,320.00	\$0.00	\$0.00	\$0
586	1.3.1.4.4.5	Lens Testing	LLNL		0	8 wks	\$0.00	\$20,000.00	\$16,960.00	\$36,960.00	\$20,400.80	\$14,340.20	\$71,701
587	1.3.1.4.4.5	-	LLNL	M&S	2	0 wks	\$0.00	\$6,000.00	\$0.00	\$6,000.00	\$1,134.00	\$1,783.50	\$8,917
		LLNL M&S Total		M&S	0	6,000	\$0.00	\$0.00	\$0.00	\$6,000.00	\$0.00	\$0.00	\$0
588	1.3.1.4.4.5		LLNL	B&H	2	4 wks	\$0.00	\$0.00	\$8,320.00	\$8,320.00	\$8,153.60	\$4,118.40	\$20,592
-	1.0.1.4.4.0	LLNL Mech. Fab: Assembly Tech	LLIVE	B&H	0	4 wks	\$0.00	\$0.00	\$0.00	\$8.320.00	\$0.00	\$0.00	\$0,032
		,					, , , , ,		, , , , , ,	, , ,		, , , , ,	
589	1.3.1.4.4.5	-	LLNL	ED&I	2	4 wks	\$0.00	\$0.00	\$8,640.00	\$8,640.00	\$8,467.20	\$4,276.80	\$21,384
		LLNL Physicist -Scientist		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$8,640.00	\$0.00	\$0.00	\$0
590	1.3.1.4.4.5		LLNL	M&S	2	0 wks	\$0.00	\$14,000.00	\$0.00	\$14,000.00	\$2,646.00	\$4,161.50	\$20,807
		LLNL M&S Total		M&S	0	14,000	\$0.00	\$0.00	\$0.00	\$14,000.00	\$0.00	\$0.00	\$0
591	1.3.1.5	Crystals and Gratings			0	2,231.3 wks	\$0.00	\$153,700.00	\$69,772.64	\$223,472.64	\$25,154.61	\$64,385.42	\$313,012
592	1.3.1.5.1	Crystal Monochromator			0	17.35 wks	\$0.00	\$45,000.00	\$33,123.48	\$78,123.48	\$11,302.78	\$28,386.58	\$117,812
593	1.3.1.5.1.1	Vacuum engineering parts	SLAC	M&S	3	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$742.00	\$2,862
\dashv		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0
594	1.3.1.5.1.1	Cyrstal & Mount	SLAC	M&S	1	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$318.00	\$2,438
\dashv		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0
595	1.3.1.5.1.1	Picomotor & driver parts	SLAC	M&S	1	0 wks	\$0.00	\$1,500.00	\$0.00	\$1,500.00	\$90.00	\$238.50	\$1,828
		SLAC M&S Total		M&S	0	1,500	\$0.00	\$0.00	\$0.00	\$1,500.00	\$0.00	\$0.00	\$0
96	1.3.1.5.1.1	4 wy Cross Vessel Fab	SLAC	M&S	1	0 wks	\$0.00	\$2,900.00	\$0.00	\$2,900.00	\$174.00	\$461.10	\$3,53
-		SLAC M&S Total		M&S	0	2,900	\$0.00	\$0.00	\$0.00	\$2,900.00	\$0.00	\$0.00	\$(
597	1.3.1.5.1.1	Adapter Flanges	SLAC	M&S	3	0 wks	\$0.00	\$500.00	\$0.00	\$500.00	\$30.00	\$185.50	\$71
	- "	SLAC M&S Total		M&S	0	500	\$0.00	\$0.00	\$0.00	\$500.00	\$0.00	\$0.00	\$0

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ID		Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
598	1.3.1.5.1.1	Spindle Assembly parts	SLAC	M&S	3	0 wks	\$0.00	\$1,200.00	\$0.00	\$1,200.00	\$72.00	\$445.20	\$1,717.
		SLAC M&S Total		M&S	0	1,200	\$0.00	\$0.00	\$0.00	\$1,200.00	\$0.00	\$0.00	\$0.
599	1.3.1.5.1.1	Spindle Assembly labor	SLAC	B&H	3	0.6 wks	\$0.00	\$0.00	\$1,199.28	\$1,199.28	\$239.86	\$503.70	\$1,942.
		SLAC Mech. Fab: Assembly Tech		B&H	0	0.6 wks	\$0.00	\$0.00	\$0.00	\$1,199.28	\$0.00	\$0.00	\$0.
600	1.3.1.5.1.1	Bearings	SLAC	M&S	3	0 wks	\$0.00	\$600.00	\$0.00	\$600.00	\$36.00	\$222.60	\$858
		SLAC M&S Total		M&S	0	600	\$0.00	\$0.00	\$0.00	\$600.00	\$0.00	\$0.00	\$0
01	1.3.1.5.1.1	Fab & Machining parts	SLAC	M&S	3	0 wks	\$0.00	\$100.00	\$0.00	\$100.00	\$6.00	\$37.10	\$143
		SLAC M&S Total		M&S	0	100	\$0.00	\$0.00	\$0.00	\$100.00	\$0.00	\$0.00	\$0
602	1.3.1.5.1.1	Fab & Machining labor	SLAC	B&H	3	0.2 wks	\$0.00	\$0.00	\$456.00	\$456.00	\$446.88	\$316.01	\$1,218
		LLNL Mech. Fab: Machine Shop		B&H	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$456.00	\$0.00	\$0.00	\$0
303	1.3.1.5.1.1	·	SLAC		3	3.2 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
04	1.3.1.5.1.1	Sine Arm Drive Mechanical Assembly	SLAC	B&H	3	2 wks	\$0.00	\$0.00	\$3,997.60	\$3,997.60	\$799.52		\$6,476
	1.0.1.0.1.1	SLAC Mech. Fab: Assembly Tech	02.10	B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$3,997.60	\$0.00	\$0.00	\$0
05	1.3.1.5.1.1	Sine Arm Drive Electrical Assembly	SLAC	B&H	3	0.5 wks	\$0.00	\$0.00	\$1,000.00	\$1,000.00	\$200.00	\$420.00	\$1,620
05	1.3.1.5.1.1		SLAC										
		SLACL PCD:Inst-Cabling-Elec Fab		B&H	0	0.5 wks	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$
06	1.3.1.5.1.1	Encoder-Heidenhain	SLAC	M&S	3	0 wks	\$0.00	\$7,300.00	\$0.00	\$7,300.00	\$438.00	\$2,708.30	\$10,44
		SLAC M&S Total		M&S	0	7,300	\$0.00	\$0.00	\$0.00	\$7,300.00	\$0.00	\$0.00	\$
07	1.3.1.5.1.1	Micrometer Mitutyo	SLAC	M&S	3	0 wks	\$0.00	\$600.00	\$0.00	\$600.00	\$36.00	\$222.60	\$85
		SLAC M&S Total		M&S	0	600	\$0.00	\$0.00	\$0.00	\$600.00	\$0.00	\$0.00	\$
80	1.3.1.5.1.1	Gear Reducer/Adapter	SLAC	M&S	3	0 wks	\$0.00	\$5,100.00	\$0.00	\$5,100.00	\$306.00	\$1,892.10	\$7,29
		SLAC M&S Total		M&S	0	5,100	\$0.00	\$0.00	\$0.00	\$5,100.00	\$0.00	\$0.00	\$
09	1.3.1.5.1.1	Stepper Motor Drive Syst.	SLAC	M&S	3	0 wks	\$0.00	\$1,500.00	\$0.00	\$1,500.00	\$90.00	\$556.50	\$2,14
		SLAC M&S Total		M&S	0	1,500	\$0.00	\$0.00	\$0.00	\$1,500.00	\$0.00	\$0.00	\$
10	1.3.1.5.1.1	Bearing and Couplings	SLAC	M&S	3	0 wks	\$0.00	\$200.00	\$0.00	\$200.00	\$12.00	\$74.20	\$28
_		SLAC M&S Total		M&S	0	200	\$0.00	\$0.00	\$0.00	\$200.00	\$0.00	\$0.00	\$6
11	1.3.1.5.1.1	White Beam Stop Mechanical Assy	SLAC	B&H	3	1 wk	\$0.00	\$0.00	\$2,080.00	\$2,080.00	\$2,038.40	\$1,441.44	\$5,55
_		LLNL Mech. Fab: Assembly Tech		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,080.00	\$0.00	\$0.00	\$0
12	1.3.1.5.1.1		SLAC	B&H	3	0.25 wks	\$0.00	\$0.00	\$500.00	\$500.00	\$100.00	\$210.00	\$81
		SLACL PCD:Inst-Cabling-Elec Fab		B&H	0	0.25 wks	\$0.00	\$0.00	\$0.00	\$500.00	\$0.00	\$0.00	\$
13	1.3.1.5.1.1	Tee Vessel	SLAC	M&S	3	0 wks	\$0.00	\$600.00	\$0.00	\$600.00	\$36.00	\$222.60	\$85
13	1.3.1.5.1.1		SLAC										
		SLAC M&S Total		M&S	0	600	\$0.00	\$0.00	\$0.00	\$600.00	\$0.00	\$0.00	\$
14	1.3.1.5.1.1	Feedthru & Hardware	SLAC	M&S	3	0 wks	\$0.00	\$700.00	\$0.00	\$700.00	\$42.00	\$259.70	\$1,00
		SLAC M&S Total		M&S	0	700	\$0.00	\$0.00	\$0.00	\$700.00	\$0.00	\$0.00	\$
15	1.3.1.5.1.1	Support Stand Mechanical Assy	SLAC	B&H	3	0.1 wks	\$0.00	\$0.00	\$199.88	\$199.88	\$39.98	\$83.95	\$32
		SLAC Mech. Fab: Assembly Tech		B&H	0	0.1 wks	\$0.00	\$0.00	\$0.00	\$199.88	\$0.00	\$0.00	\$0

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ID		Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
4616	1.3.1.5.1.1	Support Stand Electrical Assy	SLAC	B&H	3	0.25 wks	\$0.00	\$0.00	\$500.00	\$500.00	\$100.00	\$210.00	\$810.00
\neg		SLACL PCD:Inst-Cabling-Elec Fab		B&H	0	0.25 wks	\$0.00	\$0.00	\$0.00	\$500.00	\$0.00	\$0.00	\$0.00
4617	1.3.1.5.1.1	Fab, Welding & Maching	SLAC	M&S	3	0 wks	\$0.00	\$2,600.00	\$0.00	\$2,600.00	\$156.00	\$964.60	\$3,720.6
		SLAC M&S Total		M&S	0	2,600	\$0.00	\$0.00	\$0.00	\$2,600.00	\$0.00	\$0.00	\$0.00
4618	1.3.1.5.1.1	Ion Pump & Controller	SLAC	M&S	3	0 wks	\$0.00	\$5,400.00	\$0.00	\$5,400.00	\$324.00	\$2,003.40	\$7,727.4
\rightarrow		SLAC M&S Total		M&S	0	5,400	\$0.00	\$0.00	\$0.00	\$5,400.00	\$0.00	\$0.00	\$0.00
4619	1.3.1.5.1.1	Scoll Roughing Pump	SLAC	M&S	3	0 wks	\$0.00	\$9,000.00	\$0.00	\$9,000.00	\$540.00	\$3,339.00	\$12,879.0
_		SLAC M&S Total		M&S	0	9,000	\$0.00	\$0.00	\$0.00	\$9,000.00	\$0.00	\$0.00	\$0.00
4620	1.3.1.5.1.1	Misc Hardware	SLAC	M&S	3	0 wks	\$0.00	\$700.00	\$0.00	\$700.00	\$42.00	\$259.70	\$1,001.70
\rightarrow		SLAC M&S Total		M&S	0	700	\$0.00	\$0.00	\$0.00	\$700.00	\$0.00	\$0.00	\$0.00
4621	1.3.1.5.1.1	plateing	SLAC	B&H	2	1 wk	\$0.00	\$0.00	\$5,000.00	\$5,000.00	\$1,000.00	\$1,500.00	\$7,500.0
		SLAC Mech. Fab: Plating & Cleaning		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$5,000.00	\$0.00	\$0.00	\$0.00
4622	1.3.1.5.1.1	cleaning	SLAC	B&H	2	0.75 wks	\$0.00	\$0.00	\$2,400.00	\$2,400.00	\$480.00	\$720.00	\$3,600.0
		SLAC Mech. Fab: Machine Shop		В&Н	0	0.75 wks	\$0.00	\$0.00	\$0.00	\$2,400.00	\$0.00	\$0.00	\$0.00
4623	1.3.1.5.1.1	braze/weld	SLAC	B&H	3	1.8 wks	\$0.00	\$0.00	\$4,104.00	\$4,104.00	\$820.80	\$1,723.68	\$6,648.4
		SLACL T&M Crafts - Welder		B&H	0	1.8 wks	\$0.00	\$0.00	\$0.00	\$4,104.00	\$0.00	\$0.00	\$0.00
1624	1.3.1.5.1.1	Support Parts	SLAC	M&S	3	0 wks	\$0.00	\$500.00	\$0.00	\$500.00	\$30.00	\$185.50	\$715.5
1024	1.5.1.5.1.1	SLAC M&S Total	SEAC	M&S	0	500	\$0.00	\$0.00	\$0.00	\$500.00	\$0.00	\$0.00	\$0.00
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1625	1.3.1.5.1.1	Support Fab & Machining	SLAC	B&H	3	1 wk	\$0.00	\$0.00	\$1,998.80	\$1,998.80	\$399.76	\$839.50	\$3,238.0
		SLAC Mech. Fab: Assembly Tech		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$1,998.80	\$0.00	\$0.00	\$0.0
1626	1.3.1.5.1.1	vacuum mechanical assembly	SLAC	B&H	1	1.2 wks	\$0.00	\$0.00	\$2,398.56	\$2,398.56	\$479.71	\$431.74	\$3,310.0
		SLAC Mech. Fab: Assembly Tech		B&H	0	1.2 wks	\$0.00	\$0.00	\$0.00	\$2,398.56	\$0.00	\$0.00	\$0.0
1627	1.3.1.5.1.1	vacuum electrical assembly	SLAC	ED&I	1	0.2 wks	\$0.00	\$0.00	\$384.00	\$384.00	\$76.80	\$69.12	\$529.9
		SLAC PCD:Coordinator Associate		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$384.00	\$0.00	\$0.00	\$0.0
1628	1.3.1.5.1.1	alignment	SLAC	B&H	3	1 wk	\$0.00	\$0.00	\$2,280.00	\$2,280.00	\$456.00	\$957.60	\$3,693.6
		SLAC Metrology:Eng.& Surveyors		В&Н	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,280.00	\$0.00	\$0.00	\$0.00
1629	1.3.1.5.1.1	installation mechanical assembly	SLAC	B&H	3	2.2 wks	\$0.00	\$0.00	\$4,397.36	\$4,397.36	\$879.47	\$1,846.89	\$7,123.7
		SLAC Mech. Fab: Assembly Tech		B&H	0	2.2 wks	\$0.00	\$0.00	\$0.00	\$4,397.36	\$0.00	\$0.00	\$0.0
1630	1.3.1.5.1.1	installation welding	SLAC	B&H	3	0.1 wks	\$0.00	\$0.00	\$228.00	\$228.00	\$45.60	\$95.76	\$369.3
-		SLACL T&M Crafts - Welder		B&H	0	0.1 wks	\$0.00	\$0.00	\$0.00	\$228.00	\$0.00	\$0.00	\$0.0
1631	1.3.1.5.2	Pulse Split and delay			0	2,213.95 wks	\$0.00	\$108,700.00	\$36,649.16	\$145,349.16	\$13,851.83	\$35,998.84	\$195,199.8
1632	1.3.1.5.2.1	Vacuum engr M&S	SLAC	M&S	3	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$742.00	\$2,862.0
\dashv		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.00
1633	1.3.1.5.2.1	Vacuum Chamber Fab	SLAC	M&S	1	0 wks	\$0.00	\$22,500.00	\$0.00	\$22,500.00	\$1,350.00	\$3,577.50	\$27,427.5
		SLAC M&S Total		M&S	0	22,500	\$0.00	\$0.00	\$0.00	\$22,500.00	\$0.00	\$0.00	\$0.00

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ID		Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
534	1.3.1.5.2.1	technician	SLAC	B&H	3	0.2 wks	\$0.00	\$0.00	\$399.76	\$399.76	\$79.95	\$167.90	\$647.
		SLAC Mech. Fab: Assembly Tech		B&H	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$399.76	\$0.00	\$0.00	\$0.
35	1.3.1.5.2.1	Adapter Flanges	SLAC	M&S	3	0 wks	\$0.00	\$500.00	\$0.00	\$500.00	\$30.00	\$185.50	\$715.
		SLAC M&S Total		M&S	0	500	\$0.00	\$0.00	\$0.00	\$500.00	\$0.00	\$0.00	\$0.
36	1.3.1.5.2.1	Support Stand Assy	SLAC	B&H	3	0.2 wks	\$0.00	\$0.00	\$399.76	\$399.76	\$79.95	\$167.90	\$647
		SLAC Mech. Fab: Assembly Tech		B&H	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$399.76	\$0.00	\$0.00	\$0.
37	1.3.1.5.2.1	Fab, Welding & Maching Material	SLAC	M&S	3	0 wks	\$0.00	\$2,400.00	\$0.00	\$2,400.00	\$144.00	\$890.40	\$3,434
-		SLAC M&S Total		M&S	0	2,400	\$0.00	\$0.00	\$0.00	\$2,400.00	\$0.00	\$0.00	\$0
38	1.3.1.5.2.1	Fab, Welding & Maching Labor	SLAC		3	0.3 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
_		SLAC T&M Crafts - Welder			0	0.3 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
39	1.3.1.5.2.1	Assy Base Plate	SLAC	M&S	3	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$371.00	\$1,431
-		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0
340	1.3.1.5.2.1	Crystal Goniometers M-035 Material	SLAC	M&S	1	0 wks	\$0.00	\$3,800.00	\$0.00	\$3,800.00	\$228.00	\$604.20	\$4,632
\dashv		SLAC M&S Total		M&S	0	3,800	\$0.00	\$0.00	\$0.00	\$3,800.00	\$0.00	\$0.00	\$0
41	1.3.1.5.2.1	Crystal Goniometers M-035 Labor	SLAC	B&H	1	0.4 wks	\$0.00	\$0.00	\$799.52	\$799.52	\$159.90	\$143.91	\$1,103
\dashv		SLAC Mech. Fab: Assembly Tech		B&H	0	0.4 wks	\$0.00	\$0.00	\$0.00	\$799.52	\$0.00	\$0.00	\$0
42	1.3.1.5.2.1	Goniom. Control 4Ch.	SLAC	M&S	1	0 wks	\$0.00	\$4,600.00	\$0.00	\$4,600.00	\$276.00	\$731.40	\$5,60
\dashv		SLAC M&S Total		M&S	0	4,600	\$0.00	\$0.00	\$0.00	\$4,600.00	\$0.00	\$0.00	\$0
43	1.3.1.5.2.1	Amp/Pos Servo Controller	SLAC	M&S	1	0 wks	\$0.00	\$3,700.00	\$0.00	\$3,700.00	\$222.00	\$588.30	\$4,510
_		SLAC M&S Total		M&S	0	3,700	\$0.00	\$0.00	\$0.00	\$3,700.00	\$0.00	\$0.00	\$0
44	1.3.1.5.2.1	Amp Module 3 Ch.	SLAC	M&S	1	0 wks	\$0.00	\$2,200.00	\$0.00	\$2,200.00	\$132.00	\$349.80	\$2,68
_		SLAC M&S Total		M&S	0	2,200	\$0.00	\$0.00	\$0.00	\$2,200.00	\$0.00	\$0.00	\$0
645	1.3.1.5.2.1	Controller Chassis	SLAC	M&S	1	0 wks	\$0.00	\$2,600.00	\$0.00	\$2,600.00	\$156.00	\$413.40	\$3,169
_		SLAC M&S Total		M&S	0	2,600	\$0.00	\$0.00	\$0.00	\$2,600.00	\$0.00	\$0.00	\$0
46	1.3.1.5.2.1	Amp Module 3 Ch.	SLAC	M&S	1	0 wks	\$0.00	\$4,600.00	\$0.00	\$4,600.00	\$276.00	\$731.40	\$5,607
\dashv		SLAC M&S Total		M&S	0	4,600	\$0.00	\$0.00	\$0.00	\$4,600.00	\$0.00	\$0.00	\$0
647	1.3.1.5.2.1	Precision Lin. Stage UMP-160	SLAC	M&S	1	0 wks	\$0.00	\$22,900.00	\$0.00	\$22,900.00	\$1,374.00	\$3,641.10	\$27,915
\dashv		SLAC M&S Total		M&S	0	22,900	\$0.00	\$0.00	\$0.00	\$22,900.00	\$0.00	\$0.00	\$0
48	1.3.1.5.2.1	Precision Lin. Stage UMP-160 Labor	SLAC	B&H	1	2 wks	\$0.00	\$0.00	\$6,400.00	\$6,400.00	\$1,280.00	\$1,152.00	\$8,832
_		SLAC Mech. Fab: Machine Shop		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$6,400.00	\$0.00	\$0.00	\$0
49	1.3.1.5.2.1	Stepper Controller +Rack	SLAC	M&S	1	0 wks	\$0.00	\$5,600.00	\$0.00	\$5,600.00	\$336.00	\$890.40	\$6,826
-		SLAC M&S Total	323	M&S	0	5,600	\$0.00	\$0.00	\$0.00	\$5,600.00	\$0.00	\$0.00	\$0,020
50	1.3.1.5.2.1	Misc Cables & hrdwr.	SLAC	M&S	1	0 wks	\$0.00	\$500.00	\$0.00	\$500.00	\$30.00	\$79.50	\$609
-50		SLAC M&S Total	02.0	M&S	0	500	\$0.00	\$0.00	\$0.00	\$500.00	\$0.00	\$0.00	\$603
51	1.3.1.5.2.1	Detector Actuator Assys Parts	SLAC	M&S	3	0 wks	\$0.00	\$1,200.00	\$0.00	\$1,200.00	\$72.00	\$445.20	\$1,717

ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
	CWBO	SLAC M&S Total	OBS	M&S	0	1,200	\$0.00	\$0.00	\$0.00	\$1,200.00	\$0.00	\$0.00	\$0.0
652	1.3.1.5.2.1	Detector Actuator Assys Labor	SLAC	B&H	3	2 wks	\$0.00	\$0.00	\$3,997.60	\$3,997.60	\$799.52	\$1,678.99	\$6,476.
		SLAC Mech. Fab: Assembly Tech		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$3,997.60	\$0.00	\$0.00	\$0.
553	1.3.1.5.2.1	Detector mount fixtures	SLAC	M&S	3	0 wks	\$0.00	\$1,200.00	\$0.00	\$1,200.00	\$72.00	\$445.20	\$1,717
		SLAC M&S Total		M&S	0	1,200	\$0.00	\$0.00	\$0.00	\$1,200.00	\$0.00	\$0.00	\$0.
654	1.3.1.5.2.1	Diode Detectors	SLAC	M&S	3	0 wks	\$0.00	\$400.00	\$0.00	\$400.00	\$24.00	\$148.40	\$572
		SLAC M&S Total		M&S	0	400	\$0.00	\$0.00	\$0.00	\$400.00	\$0.00	\$0.00	\$0
655	1.3.1.5.2.1	Detector Amplifier	SLAC	M&S	3	0 wks	\$0.00	\$2,700.00	\$0.00	\$2,700.00	\$162.00	\$1,001.70	\$3,863
		SLAC M&S Total		M&S	0	2,700	\$0.00	\$0.00	\$0.00	\$2,700.00	\$0.00	\$0.00	\$0
656	1.3.1.5.2.1	Detector P.Supply	SLAC	M&S	3	0 wks	\$0.00	\$1,500.00	\$0.00	\$1,500.00	\$90.00	\$556.50	\$2,146
\dashv		SLAC M&S Total		M&S	0	1,500	\$0.00	\$0.00	\$0.00	\$1,500.00	\$0.00	\$0.00	\$0
657	1.3.1.5.2.1	V to F Counter	SLAC	M&S	3	0 wks	\$0.00	\$1,500.00	\$0.00	\$1,500.00	\$90.00	\$556.50	\$2,146
		SLAC M&S Total		M&S	0	1,500	\$0.00	\$0.00	\$0.00	\$1,500.00	\$0.00	\$0.00	\$0
558	1.3.1.5.2.1	Thick Silicon Crystals	SLAC	M&S	3	0 wks	\$0.00	\$500.00	\$0.00	\$500.00	\$30.00	\$185.50	\$715
\dashv		SLAC M&S Total		M&S	0	500	\$0.00	\$0.00	\$0.00	\$500.00	\$0.00	\$0.00	\$0
559	1.3.1.5.2.1	Cut Silicon Crystals	SLAC	M&S	3	0 wks	\$0.00	\$500.00	\$0.00	\$500.00	\$30.00	\$185.50	\$71
\dashv		SLAC M&S Total		M&S	0	500	\$0.00	\$0.00	\$0.00	\$500.00	\$0.00	\$0.00	\$6
660	1.3.1.5.2.1	Polish Silicon Crystals	SLAC	M&S	3	0 wks	\$0.00	\$500.00	\$0.00	\$500.00	\$30.00	\$185.50	\$715
		SLAC M&S Total		M&S	0	500	\$0.00	\$0.00	\$0.00	\$500.00	\$0.00	\$0.00	\$0
661	1.3.1.5.2.1	Thin Silicon Crystal	SLAC	M&S	3	0 wks	\$0.00	\$300.00	\$0.00	\$300.00	\$18.00	\$111.30	\$429
\dashv		SLAC M&S Total		M&S	0	300	\$0.00	\$0.00	\$0.00	\$300.00	\$0.00	\$0.00	\$0
662	1.3.1.5.2.1	Goniometer Hds (Huber1002)	SLAC	M&S	3	0 wks	\$0.00	\$1,200.00	\$0.00	\$1,200.00	\$72.00	\$445.20	\$1,717
\dashv		SLAC M&S Total		M&S	0	1,200	\$0.00	\$0.00	\$0.00	\$1,200.00	\$0.00	\$0.00	\$0
663	1.3.1.5.2.1	Goniometer Hds (Huber1002) Labor	SLAC	B&H	3	0.2 wks	\$0.00	\$0.00	\$399.76	\$399.76	\$79.95	\$167.90	\$647
		SLAC Mech. Fab: Assembly Tech		В&Н	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$399.76	\$0.00	\$0.00	\$0
664	1.3.1.5.2.1	ACA Mounts	SLAC	M&S	3	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$371.00	\$1,431
\dashv		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0
665	1.3.1.5.2.1	Crystal Mounting Fixtures Parts	SLAC	M&S	3	0 wks	\$0.00	\$200.00	\$0.00	\$200.00	\$12.00	\$74.20	\$286
\dashv		SLAC M&S Total		M&S	0	200	\$0.00	\$0.00	\$0.00	\$200.00	\$0.00	\$0.00	\$0
666	1.3.1.5.2.1	Crystal Mounting Fixtures Labor	SLAC	B&H	3	0.1 wks	\$0.00	\$0.00	\$199.88	\$199.88	\$39.98	\$83.95	\$32
\dashv		SLAC Mech. Fab: Assembly Tech		В&Н	0	0.1 wks	\$0.00	\$0.00	\$0.00	\$199.88	\$0.00	\$0.00	\$0
667	1.3.1.5.2.1	Feedthru & Hardware Parts	SLAC		3	2,200 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
668	1.3.1.5.2.1	Feedthru & Hardware Labor	SLAC	B&H	3	0.2 wks	\$0.00	\$0.00	\$399.76	\$399.76	\$79.95	\$167.90	\$647
-		SLAC Mech. Fab: Assembly Tech		В&Н	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$399.76	\$0.00	\$0.00	\$0
669	1.3.1.5.2.1	Ion Pump & Controller	SLAC	M&S	3	0 wks	\$0.00	\$5,400.00	\$0.00	\$5,400.00	\$324.00	\$2,003.40	\$7,727

ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		SLAC M&S Total		M&S	0	5,400	\$0.00	\$0.00	\$0.00	\$5,400.00	\$0.00	\$0.00	\$0.0
670	1.3.1.5.2.1	Misc Hardware	SLAC	M&S	3	0 wks	\$0.00	\$10,000.00	\$0.00	\$10,000.00	\$600.00	\$3,710.00	\$14,310.0
		SLAC M&S Total		M&S	0	10,000	\$0.00	\$0.00	\$0.00	\$10,000.00	\$0.00	\$0.00	\$0.0
671	1.3.1.5.2.1	Misc plating/cleaning parts	SLAC	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$265.00	\$1,325.
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.
672	1.3.1.5.2.1	Misc plating/cleaning plating labor	SLAC	B&H	2	1 wk	\$0.00	\$0.00	\$5,000.00	\$5,000.00	\$1,000.00	\$1,500.00	\$7,500.
		SLAC Mech. Fab: Plating & Cleaning		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$5,000.00	\$0.00	\$0.00	\$0.
673	1.3.1.5.2.1	Misc plating/cleaning labor	SLAC	B&H	2	0.75 wks	\$0.00	\$0.00	\$2,400.00	\$2,400.00	\$480.00	\$720.00	\$3,600
		SLAC Mech. Fab: Machine Shop		B&H	0	0.75 wks	\$0.00	\$0.00	\$0.00	\$2,400.00	\$0.00	\$0.00	\$0.
674	1.3.1.5.2.1	Misc brazing/welding parts	SLAC	M&S	3	0 wks	\$0.00	\$500.00	\$0.00	\$500.00	\$30.00	\$185.50	\$715
		SLAC M&S Total		M&S	0	500	\$0.00	\$0.00	\$0.00	\$500.00	\$0.00	\$0.00	\$0.
375	1.3.1.5.2.1	Misc brazing/welding assembly	SLAC	B&H	3	1 wk	\$0.00	\$0.00	\$5,000.00	\$5,000.00	\$1,000.00	\$2,100.00	\$8,100
		SLAC Mech. Fab: Plating & Cleaning		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$5,000.00	\$0.00	\$0.00	\$0.
676	1.3.1.5.2.1	Misc brazing/welding welding	SLAC	B&H	3	0.2 wks	\$0.00	\$0.00	\$456.00	\$456.00	\$91.20	\$191.52	\$738
		SLACL T&M Crafts - Welder		B&H	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$456.00	\$0.00	\$0.00	\$0.
577	1.3.1.5.2.1	vacuum assembly hardware	SLAC	M&S	1	0 wks	\$0.00	\$200.00	\$0.00	\$200.00	\$12.00	\$31.80	\$243
		SLAC M&S Total		M&S	0	200	\$0.00	\$0.00	\$0.00	\$200.00	\$0.00	\$0.00	\$0
678	1.3.1.5.2.1	vacuum assembly	SLAC	B&H	1	3 wks	\$0.00	\$0.00	\$5,996.40	\$5,996.40	\$1,199.28		\$8,275
		SLAC Mech. Fab: Assembly Tech		B&H	0	3 wks	\$0.00	\$0.00	\$0.00	\$5,996.40	\$0.00	\$0.00	\$0.
679	1.3.1.5.2.1	vacuum tech	SLAC	B&H		0.1 wks	\$0.00	\$0.00	\$175.36	\$175.36	\$35.07	\$31.56	\$242
JI 3	1.3.1.3.2.1	SLAC PCD:Technician	SLAC	B&H	0	0.1 wks	\$0.00	\$0.00	\$0.00	\$175.36	\$0.00	\$0.00	\$0
680	1.3.1.5.2.1	installation assembly	SLAC	B&H		2.2 wks	\$0.00	\$0.00	\$4,397.36	\$4,397.36	\$879.47	\$1,846.89	\$7,123
080	1.3.1.5.2.1	·	SLAC		3								
		SLAC Mech. Fab: Assembly Tech		B&H	0	2.2 wks	\$0.00	\$0.00	\$0.00	\$4,397.36	\$0.00	\$0.00	\$0
581	1.3.1.5.2.1	installation welding	SLAC	B&H	3	0.1 wks	\$0.00	\$0.00	\$228.00	\$228.00	\$45.60		\$369
		SLACL T&M Crafts - Welder		B&H	0	0.1 wks	\$0.00	\$0.00	\$0.00	\$228.00	\$0.00	\$0.00	\$0.
682	1.3.1.6	Diagnostics			0	435.69 wks	\$0.00	\$3,846,001.00	\$973,311.60	\$4,819,312.60	\$1,680,739.56		\$7,992,551.
683	1.3.1.6.1	Modeling and Simulation			0	2 wks	\$0.00	\$14,000.00	\$4,240.00	\$18,240.00	\$6,801.20	\$6,260.30	\$31,301.
684	1.3.1.6.1.1	Computer System	LLNL		0	2 wks	\$0.00	\$14,000.00	\$4,240.00	\$18,240.00	\$6,801.20	\$6,260.30	\$31,301.
685	1.3.1.6.1.1	Computer Documentation & drafting	LLNL	ED&I	2	1 wk	\$0.00	\$0.00	\$2,160.00	\$2,160.00	\$2,116.80	\$1,069.20	\$5,346
		LLNL Physicist -Scientist		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,160.00	\$0.00	\$0.00	\$0
86	1.3.1.6.1.1	Computer labor	LLNL	B&H	2	1 wk	\$0.00	\$0.00	\$2,080.00	\$2,080.00	\$2,038.40	\$1,029.60	\$5,148
		LLNL PCD:Technician		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,080.00	\$0.00	\$0.00	\$0
687	1.3.1.6.1.1	Computer	LLNL	M&S	2	0 wks	\$0.00	\$10,000.00	\$0.00	\$10,000.00	\$1,890.00	\$2,972.50	\$14,862
		LLNL M&S Total		M&S	0	10,000	\$0.00	\$0.00	\$0.00	\$10,000.00	\$0.00	\$0.00	\$0
688	1.3.1.6.1.1	Monitor	LLNL	M&S	2	0 wks	\$0.00	\$4,000.00	\$0.00	\$4,000.00	\$756.00	\$1,189.00	\$5,945

I CI	S	CD1	TEC

ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		LLNL M&S Total		M&S	0	4,000	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$0.
89	1.3.1.6.2	Direct Scintillator Imager			0	27.13 wks	\$0.00	\$440,000.00	\$59,535.60	\$499,535.60	\$141,504.89	\$142,781.82	\$783,822.
90	1.3.1.6.2.1	Reserved	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
691	1.3.1.6.2.2	Reserved	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
692	1.3.1.6.2.3	Data Acquisition	LLNL		0	1 wk	\$0.00	\$39,000.00	\$2,080.00	\$41,080.00	\$9,409.40	\$12,622.35	\$63,111.
693	1.3.1.6.2.3	Computer labor	LLNL	B&H	2	1 wk	\$0.00	\$0.00	\$2,080.00	\$2,080.00	\$2,038.40	\$1,029.60	\$5,148
		LLNL PCD:Technician		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,080.00	\$0.00	\$0.00	\$0
594	1.3.1.6.2.3	Computer	LLNL	M&S	2	0 wks	\$0.00	\$10,000.00	\$0.00	\$10,000.00	\$1,890.00	\$2,972.50	\$14,862
		LLNL M&S Total		M&S	0	10,000	\$0.00	\$0.00	\$0.00	\$10,000.00	\$0.00	\$0.00	\$0
695	1.3.1.6.2.3	Monitor	LLNL	M&S	2	0 wks	\$0.00	\$4,000.00	\$0.00	\$4,000.00	\$756.00	\$1,189.00	\$5,945
		LLNL M&S Total		M&S	0	4,000	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$0
96	1.3.1.6.2.3	Stage controller Channel-Card	LLNL	M&S	2	0 wks	\$0.00	\$7,000.00	\$0.00	\$7,000.00	\$1,323.00	\$2,080.75	\$10,403
		LLNL M&S Total		M&S	0	7,000	\$0.00	\$0.00	\$0.00	\$7,000.00	\$0.00	\$0.00	\$0
97	1.3.1.6.2.3		LLNL	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$189.00	\$297.25	\$1,486
,,,,	11011101210	LLNL M&S Total	22.12	M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0
													\$25,260
98	1.3.1.6.2.3	, and the second	LLNL	M&S	2	0 wks	\$0.00	\$17,000.00	\$0.00	\$17,000.00	\$3,213.00	\$5,053.25	
		LLNL M&S Total		M&S	0	17,000	\$0.00	\$0.00	\$0.00	\$17,000.00	\$0.00	\$0.00	\$0
699	1.3.1.6.2.4	Prototype	LLNL		0	8.13 wks	\$0.00	\$70,000.00	\$18,135.60	\$88,135.60	\$31,002.89	\$26,455.42	\$145,593
700	1.3.1.6.2.4	Scintillating Crystal	LLNL	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$378.00	\$594.50	\$2,972
		LLNL M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0
701	1.3.1.6.2.4	Prism	LLNL	M&S	1	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$(
		LLNL M&S Total		M&S	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
702	1.3.1.6.2.4	Prism mount	LLNL	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$189.00	\$297.25	\$1,486
		LLNL M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0
703	1.3.1.6.2.4	Prism to objective motorized stage	LLNL	M&S	1	0 wks	\$0.00	\$8,000.00	\$0.00	\$8,000.00	\$1,512.00	\$1,426.80	\$10,93
		LLNL M&S Total		M&S	0	8,000	\$0.00	\$0.00	\$0.00	\$8,000.00	\$0.00	\$0.00	\$0
704	1.3.1.6.2.4	Microscope objective	LLNL	M&S	1	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$567.00	\$535.05	\$4,10
		LLNL M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0
705	1.3.1.6.2.4	Objective to CCD manual stage	LLNL	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$189.00	\$178.35	\$1,36
	1.0.110.2.1	LLNL M&S Total	22.12	M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$1,00
700	101001		1180		0								
'06	1.3.1.6.2.4	·	LLNL	M&S	1	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$567.00	\$535.05	\$4,10
		LLNL M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0
707	1.3.1.6.2.4		LLNL	M&S	2	0 wks	\$0.00	\$8,000.00	\$0.00	\$8,000.00	\$1,512.00	\$2,378.00	\$11,89
		LLNL M&S Total		M&S	0	8,000	\$0.00	\$0.00	\$0.00	\$8,000.00	\$0.00	\$0.00	\$0
708	1.3.1.6.2.4	TE Cooler	LLNL	M&S	1	0 wks	\$0.00	\$8,000.00	\$0.00	\$8,000.00	\$1,512.00	\$1,426.80	\$10,938

I CI	S	CD1	TEC

ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		LLNL M&S Total		M&S	0	8,000	\$0.00	\$0.00	\$0.00	\$8,000.00	\$0.00	\$0.00	\$0.00
4709	1.3.1.6.2.4	CCD Analog board	LLNL	M&S	2	0 wks	\$0.00	\$6,000.00	\$0.00	\$6,000.00	\$1,134.00	\$1,783.50	\$8,917.50
		LLNL M&S Total		M&S	0	6,000	\$0.00	\$0.00	\$0.00	\$6,000.00	\$0.00	\$0.00	\$0.00
4710	1.3.1.6.2.4	Camera Digital board	LLNL	M&S	2	0 wks	\$0.00	\$6,000.00	\$0.00	\$6,000.00	\$1,134.00	\$1,783.50	\$8,917.50
		LLNL M&S Total		M&S	0	6,000	\$0.00	\$0.00	\$0.00	\$6,000.00	\$0.00	\$0.00	\$0.00
4711	1.3.1.6.2.4	Microchannel plate HV board	LLNL	M&S	2	0 wks	\$0.00	\$4,000.00	\$0.00	\$4,000.00	\$756.00	\$1,189.00	\$5,945.00
		LLNL M&S Total		M&S	0	4,000	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$0.00
4712	1.3.1.6.2.4	Camera Interface board	LLNL	M&S	2	0 wks	\$0.00	\$6,000.00	\$0.00	\$6,000.00	\$1,134.00	\$1,783.50	\$8,917.50
		LLNL M&S Total		M&S	0	6,000	\$0.00	\$0.00	\$0.00	\$6,000.00	\$0.00	\$0.00	\$0.00
4713	1.3.1.6.2.4	Computer Interface board	LLNL	M&S	1	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$378.00	\$356.70	\$2,734.70
		LLNL M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.00
4714	1.3.1.6.2.4	Camera vaccum housing	LLNL	M&S	2	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$567.00	\$891.75	\$4,458.75
		LLNL M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0.00
4715	1.3.1.6.2.4	Cold finger	LLNL	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$189.00	\$297.25	\$1,486.25
		LLNL M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.00
4716	1.3.1.6.2.4	Chiller	LLNL	M&S	1	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$378.00	\$356.70	\$2,734.70
		LLNL M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.00
4717	1.3.1.6.2.4	Chiller Hardware	LLNL	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$189.00	\$297.25	\$1,486.25
		LLNL M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.00
4718	1.3.1.6.2.4	Electrical Hardware	LLNL	M&S	2	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$567.00	\$891.75	\$4,458.75
		LLNL M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0.00
4719	1.3.1.6.2.4	Feed throughs	LLNL	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$189.00	\$178.35	\$1,367.35
		LLNL M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.00
4720	1.3.1.6.2.4		LLNL	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$189.00	\$297.25	\$1,486.25
		LLNL M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.00
4721	1.3.1.6.2.4		LLNL	B&H	2	0.6 wks	\$0.00	\$0.00	\$1,368.00	\$1,368.00	\$1,340.64	\$677.16	\$3,385.80
4/21	1.3.1.0.2.4		LLINE										
		LLNL Mech. Fab: Machine Shop		B&H	0	0.6 wks	\$0.00	\$0.00	\$0.00	\$1,368.00	\$0.00	\$0.00	\$0.00
4722	1.3.1.6.2.4	·	LLNL	B&H	2	0.6 wks	\$0.00	\$0.00	\$1,368.00	\$1,368.00	\$1,340.64	\$677.16	\$3,385.80
		LLNL Mech. Fab: Machine Shop		B&H	0	0.6 wks	\$0.00	\$0.00	\$0.00	\$1,368.00	\$0.00	\$0.00	\$0.00
4723	1.3.1.6.2.4	Objective to CCD I/F	LLNL	B&H	2	0.6 wks	\$0.00	\$0.00	\$1,368.00	\$1,368.00	\$1,340.64	\$677.16	\$3,385.80
		LLNL Mech. Fab: Machine Shop		B&H	0	0.6 wks	\$0.00	\$0.00	\$0.00	\$1,368.00	\$0.00	\$0.00	\$0.00
4724	1.3.1.6.2.4	Camera housing and Cold finger	LLNL	B&H	2	0.6 wks	\$0.00	\$0.00	\$1,368.00	\$1,368.00	\$1,340.64	\$677.16	\$3,385.80
		LLNL Mech. Fab: Machine Shop		B&H	0	0.6 wks	\$0.00	\$0.00	\$0.00	\$1,368.00	\$0.00	\$0.00	\$0.00
4725	1.3.1.6.2.4	Camera Electrical assembly	LLNL	B&H	2	0.6 wks	\$0.00	\$0.00	\$1,248.00	\$1,248.00	\$1,223.04	\$617.76	\$3,088.80
		LLNL PCD:Inst-Cabling-Elec Fab		B&H	0	0.6 wks	\$0.00	\$0.00	\$0.00	\$1,248.00	\$0.00	\$0.00	\$0.00

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ID		Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
726	1.3.1.6.2.4	Camera Mechanical assembly	LLNL	B&H	2	0.9 wks	\$0.00	\$0.00	\$1,872.00	\$1,872.00	\$1,834.56	\$926.64	\$4,633.2
		LLNL Mech. Fab: Assembly Tech		B&H	0	0.9 wks	\$0.00	\$0.00	\$0.00	\$1,872.00	\$0.00	\$0.00	\$0.0
727	1.3.1.6.2.4	Camera Software installation	LLNL	ED&I	2	0.6 wks	\$0.00	\$0.00	\$1,392.00	\$1,392.00	\$1,364.16	\$689.04	\$3,445.
		LLNL Controls: Programmer		ED&I	0	0.6 wks	\$0.00	\$0.00	\$0.00	\$1,392.00	\$0.00	\$0.00	\$0.0
728	1.3.1.6.2.4	Camera Electrical acceptance test	LLNL	ED&I	2	0.6 wks	\$0.00	\$0.00	\$1,488.00	\$1,488.00	\$1,458.24	\$736.56	\$3,682.
\dashv		LLNL Electrical Engineer		ED&I	0	0.6 wks	\$0.00	\$0.00	\$0.00	\$1,488.00	\$0.00	\$0.00	\$0.
729	1.3.1.6.2.4	Camera Mechanical acceptance test	LLNL	ED&I	2	0.33 wks	\$0.00	\$0.00	\$831.60	\$831.60	\$814.97	\$411.64	\$2,058
\dashv		LLNL Mechanical Engineer		ED&I	0	0.33 wks	\$0.00	\$0.00	\$0.00	\$831.60	\$0.00	\$0.00	\$0.
730	1.3.1.6.2.4	Camera Alignment and focus	LLNL	ED&I	2	0.9 wks	\$0.00	\$0.00	\$1,944.00	\$1,944.00	\$1,905.12	\$962.28	\$4,811
\dashv		LLNL Physicist -Scientist		ED&I	0	0.9 wks	\$0.00	\$0.00	\$0.00	\$1,944.00	\$0.00	\$0.00	\$0.
731	1.3.1.6.2.4	Camera Calibration	LLNL	ED&I	2	0.9 wks	\$0.00	\$0.00	\$1,944.00	\$1,944.00	\$1,905.12	\$962.28	\$4,811
\dashv		LLNL Physicist -Scientist		ED&I	0	0.9 wks	\$0.00	\$0.00	\$0.00	\$1,944.00	\$0.00	\$0.00	\$0.
732	1.3.1.6.2.4	Camera System acceptance test	LLNL	ED&I	2	0.9 wks	\$0.00	\$0.00	\$1,944.00	\$1,944.00	\$1,905.12	\$962.28	\$4,811
\dashv		LLNL Physicist -Scientist		ED&I	0	0.9 wks	\$0.00	\$0.00	\$0.00	\$1,944.00	\$0.00	\$0.00	\$0
733	1.3.1.6.2.5	Production units	LLNL		0	18 wks	\$0.00	\$331,000.00	\$39,320.00	\$370,320.00	\$101,092.60	\$103,704.05	\$575,116.
734	1.3.1.6.2.5	Scintillating Crystal	LLNL	M&S	2	0 wks	\$0.00	\$10,000.00	\$0.00	\$10,000.00	\$1,890.00	\$2,972.50	\$14,862
-	1.0.1.0.2.0	LLNL M&S Total	LLIVE	M&S	0	10,000	\$0.00	\$0.00	\$0.00	\$10,000.00	\$0.00	\$0.00	\$0
35	1.3.1.6.2.5		LLNL	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$378.00	\$594.50	\$2,972
33	1.3.1.0.2.3	FIISIII LLNL M&S Total	LLINE	M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$2,972
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736	1.3.1.6.2.5		LLNL	M&S	1	0 wks	\$0.00	\$5,000.00	\$0.00	\$5,000.00	\$945.00	\$891.75	\$6,836
		LLNL M&S Total		M&S	0	5,000	\$0.00	\$0.00	\$0.00	\$5,000.00	\$0.00	\$0.00	\$0
737	1.3.1.6.2.5	· · · · · · · · · · · · · · · · · · ·	LLNL	M&S	2	0 wks	\$0.00	\$40,000.00	\$0.00	\$40,000.00	\$7,560.00		\$59,450
		LLNL M&S Total		M&S	0	40,000	\$0.00	\$0.00	\$0.00	\$40,000.00	\$0.00	\$0.00	\$0
738	1.3.1.6.2.5	Microscope objective	LLNL	M&S	1	0 wks	\$0.00	\$13,000.00	\$0.00	\$13,000.00	\$2,457.00	\$2,318.55	\$17,775
		LLNL M&S Total		M&S	0	13,000	\$0.00	\$0.00	\$0.00	\$13,000.00	\$0.00	\$0.00	\$0
739	1.3.1.6.2.5	Objective to CCD manual stage	LLNL	M&S	1	0 wks	\$0.00	\$7,000.00	\$0.00	\$7,000.00	\$1,323.00	\$1,248.45	\$9,571
		LLNL M&S Total		M&S	0	7,000	\$0.00	\$0.00	\$0.00	\$7,000.00	\$0.00	\$0.00	\$0
740	1.3.1.6.2.5	Microchannel plate	LLNL	M&S	1	0 wks	\$0.00	\$14,000.00	\$0.00	\$14,000.00	\$2,646.00	\$2,496.90	\$19,142
\dashv		LLNL M&S Total		M&S	0	14,000	\$0.00	\$0.00	\$0.00	\$14,000.00	\$0.00	\$0.00	\$0
41	1.3.1.6.2.5	120 Hz CCD	LLNL	M&S	1	0 wks	\$0.00	\$40,000.00	\$0.00	\$40,000.00	\$7,560.00	\$7,134.00	\$54,694
\dashv		LLNL M&S Total		M&S	0	40,000	\$0.00	\$0.00	\$0.00	\$40,000.00	\$0.00	\$0.00	\$0
742	1.3.1.6.2.5	TE Cooler	LLNL	M&S	2	0 wks	\$0.00	\$20,000.00	\$0.00	\$20,000.00	\$3,780.00	\$5,945.00	\$29,725
\dashv		LLNL M&S Total		M&S	0	20,000	\$0.00	\$0.00	\$0.00	\$20,000.00	\$0.00	\$0.00	\$0
743	1.3.1.6.2.5	CCD Analog board	LLNL	M&S	1	0 wks	\$0.00	\$30,000.00	\$0.00	\$30,000.00	\$5,670.00	\$5,350.50	\$41,020
45			1		1			1				1	

CIC	CD4	TEC	
LCLS	CDI	IEC	

ID		Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
1744	1.3.1.6.2.5	Camera Digital board	LLNL	M&S	2	0 wks	\$0.00	\$30,000.00	\$0.00	\$30,000.00	\$5,670.00	\$8,917.50	\$44,587.5
		LLNL M&S Total		M&S	0	30,000	\$0.00	\$0.00	\$0.00	\$30,000.00	\$0.00	\$0.00	\$0.0
745	1.3.1.6.2.5	Microchannel plate HV board	LLNL	M&S	2	0 wks	\$0.00	\$20,000.00	\$0.00	\$20,000.00	\$3,780.00	\$5,945.00	\$29,725.0
		LLNL M&S Total		M&S	0	20,000	\$0.00	\$0.00	\$0.00	\$20,000.00	\$0.00	\$0.00	\$0.0
746	1.3.1.6.2.5	Camera Interface board	LLNL	M&S	2	0 wks	\$0.00	\$30,000.00	\$0.00	\$30,000.00	\$5,670.00	\$8,917.50	\$44,587.5
		LLNL M&S Total		M&S	0	30,000	\$0.00	\$0.00	\$0.00	\$30,000.00	\$0.00	\$0.00	\$0.0
747	1.3.1.6.2.5	Computer Interface board	LLNL	M&S	2	0 wks	\$0.00	\$9,000.00	\$0.00	\$9,000.00	\$1,701.00	\$2,675.25	\$13,376.
		LLNL M&S Total		M&S	0	9,000	\$0.00	\$0.00	\$0.00	\$9,000.00	\$0.00	\$0.00	\$0.
748	1.3.1.6.2.5	Camera vaccum housing	LLNL	M&S	2	0 wks	\$0.00	\$15,000.00	\$0.00	\$15,000.00	\$2,835.00	\$4,458.75	\$22,293.
		LLNL M&S Total		M&S	0	15,000	\$0.00	\$0.00	\$0.00	\$15,000.00	\$0.00	\$0.00	\$0.0
749	1.3.1.6.2.5	Cold finger	LLNL	M&S	2	0 wks	\$0.00	\$5,000.00	\$0.00	\$5,000.00	\$945.00	\$1,486.25	\$7,431
		LLNL M&S Total		M&S	0	5,000	\$0.00	\$0.00	\$0.00	\$5,000.00	\$0.00	\$0.00	\$0.0
750	1.3.1.6.2.5	Chiller	LLNL	M&S	2	0 wks	\$0.00	\$10,000.00	\$0.00	\$10,000.00	\$1,890.00	\$2,972.50	\$14,862.
		LLNL M&S Total		M&S	0	10,000	\$0.00	\$0.00	\$0.00	\$10,000.00	\$0.00	\$0.00	\$0.
751	1.3.1.6.2.5	Chiller Hardware	LLNL	M&S	1	0 wks	\$0.00	\$5,000.00	\$0.00	\$5,000.00	\$945.00	\$891.75	\$6,836.
\neg		LLNL M&S Total		M&S	0	5,000	\$0.00	\$0.00	\$0.00	\$5,000.00	\$0.00	\$0.00	\$0.
752	1.3.1.6.2.5	Electrical Hardware	LLNL	M&S	2	0 wks	\$0.00	\$15,000.00	\$0.00	\$15,000.00	\$2,835.00	\$4,458.75	\$22,293.
\neg		LLNL M&S Total		M&S	0	15,000	\$0.00	\$0.00	\$0.00	\$15,000.00	\$0.00	\$0.00	\$0.
753	1.3.1.6.2.5	Feed throughs	LLNL	M&S	2	0 wks	\$0.00	\$6,000.00	\$0.00	\$6,000.00	\$1,134.00	\$1,783.50	\$8,917.
		LLNL M&S Total		M&S	0	6,000	\$0.00	\$0.00	\$0.00	\$6,000.00	\$0.00	\$0.00	\$0.
754	1.3.1.6.2.5	Mechanical Hardware	LLNL	M&S	1	0 wks	\$0.00	\$5,000.00	\$0.00	\$5,000.00	\$945.00	\$891.75	\$6,836
		LLNL M&S Total		M&S	0	5,000	\$0.00	\$0.00	\$0.00	\$5,000.00	\$0.00	\$0.00	\$0.
755	1.3.1.6.2.5	Camera Base Plate	LLNL	B&H	2	0.5 wks	\$0.00	\$0.00	\$1,140.00	\$1,140.00	\$1,117.20	\$564.30	\$2,821.
		LLNL Mech. Fab: Machine Shop		B&H	0	0.5 wks	\$0.00	\$0.00	\$0.00	\$1,140.00	\$0.00	\$0.00	\$0.
756	1.3.1.6.2.5	Prism to objective I/F	LLNL	B&H	2	0.5 wks	\$0.00	\$0.00	\$1,140.00	\$1,140.00	\$1,117.20	\$564.30	\$2,821.
		LLNL Mech. Fab: Machine Shop		B&H	0	0.5 wks	\$0.00	\$0.00	\$0.00	\$1,140.00	\$0.00	\$0.00	\$0.
757	1.3.1.6.2.5	Objective to CCD I/F	LLNL	B&H	2	0.5 wks	\$0.00	\$0.00	\$1,140.00	\$1,140.00	\$1,117.20	\$564.30	\$2,821.
		LLNL Mech. Fab: Machine Shop		B&H	0	0.5 wks	\$0.00	\$0.00	\$0.00	\$1,140.00	\$0.00	\$0.00	\$0.
758	1.3.1.6.2.5	Camera housing and Cold finger	LLNL	B&H	2	0.5 wks	\$0.00	\$0.00	\$1,140.00	\$1,140.00	\$1,117.20	\$564.30	\$2,821
\dashv		LLNL Mech. Fab: Machine Shop		B&H	0	0.5 wks	\$0.00	\$0.00	\$0.00	\$1,140.00	\$0.00	\$0.00	\$0.
'59	1.3.1.6.2.5	Camera Electrical assembly	LLNL	B&H	2	2 wks	\$0.00	\$0.00	\$4,160.00	\$4,160.00	\$4,076.80	\$2,059.20	\$10,296
		LLNL PCD:Inst-Cabling-Elec Fab		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,160.00	\$0.00	\$0.00	\$0.
760	1.3.1.6.2.5	Camera Mechanical assembly	LLNL	B&H	2	3 wks	\$0.00	\$0.00	\$6,240.00	\$6,240.00	\$6,115.20	\$3,088.80	\$15,444
\dashv		LLNL Mech. Fab: Assembly Tech		B&H	0	3 wks	\$0.00	\$0.00	\$0.00	\$6,240.00	\$0.00	\$0.00	\$0.
761	1.3.1.6.2.5	Camera Software installation	LLNL	ED&I	2	0.5 wks	\$0.00	\$0.00	\$1,160.00	\$1,160.00	\$1,136.80	\$574.20	\$2,871.

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ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		LLNL Controls: Programmer		ED&I	0	0.5 wks	\$0.00	\$0.00	\$0.00	\$1,160.00	\$0.00	\$0.00	\$0.
762	1.3.1.6.2.5	Camera Electrical acceptance test	LLNL	ED&I	2	0.5 wks	\$0.00	\$0.00	\$1,240.00	\$1,240.00	\$1,215.20	\$613.80	\$3,069.
		LLNL Electrical Engineer		ED&I	0	0.5 wks	\$0.00	\$0.00	\$0.00	\$1,240.00	\$0.00	\$0.00	\$0.
763	1.3.1.6.2.5	Camera Mechanical acceptance test	LLNL	ED&I	2	1 wk	\$0.00	\$0.00	\$2,520.00	\$2,520.00	\$2,469.60	\$1,247.40	\$6,237
\dashv		LLNL Mechanical Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,520.00	\$0.00	\$0.00	\$0
764	1.3.1.6.2.5	Camera Alignment and focus	LLNL	ED&I	2	3 wks	\$0.00	\$0.00	\$6,480.00	\$6,480.00	\$6,350.40	\$3,207.60	\$16,038
\dashv		LLNL Physicist -Scientist		ED&I	0	3 wks	\$0.00	\$0.00	\$0.00	\$6,480.00	\$0.00	\$0.00	\$0
765	1.3.1.6.2.5	Camera Calibration	LLNL	ED&I	2	3 wks	\$0.00	\$0.00	\$6,480.00	\$6,480.00	\$6,350.40	\$3,207.60	\$16,038
\dashv		LLNL Physicist -Scientist		ED&I	0	3 wks	\$0.00	\$0.00	\$0.00	\$6,480.00	\$0.00	\$0.00	\$0
766	1.3.1.6.2.5	Camera System acceptance test	LLNL	ED&I	2	3 wks	\$0.00	\$0.00	\$6,480.00	\$6,480.00	\$6,350.40	\$3,207.60	\$16,038
\dashv		LLNL Physicist -Scientist		ED&I	0	3 wks	\$0.00	\$0.00	\$0.00	\$6,480.00	\$0.00	\$0.00	\$0
767	1.3.1.6.3	Scattering Foil Imager			0	33.66 wks	\$0.00	\$498,001.00	\$74,304.00	\$572,305.00	\$166,940.11	\$161,744.68	\$900,989
768	1.3.1.6.3.1	Reserved	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
769	1.3.1.6.3.2	Reserved	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
770	1.3.1.6.3.3	Data Acquisition	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
771	1.3.1.6.3.3	Computer labor	LLNL	B&H	0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
		LLNL PCD:Technician		B&H	0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
772	1.3.1.6.3.4	Prototype	LLNL		0	13.86 wks	\$0.00	\$156,001.00	\$30,984.00	\$186,985.00	\$59,848.51	\$54,693.28	\$301,526
773	1.3.1.6.3.4	Be foil	LLNL	M&S	2	0 wks	\$0.00	\$50,000.00	\$0.00	\$50,000.00	\$9,450.00	\$14,862.50	\$74,312
\dashv		LLNL M&S Total		M&S	0	50,000	\$0.00	\$0.00	\$0.00	\$50,000.00	\$0.00	\$0.00	\$0
774	1.3.1.6.3.4	Be foil mount	LLNL	M&S	2	0 wks	\$0.00	\$1.00	\$0.00	\$1.00	\$0.19	\$0.30	\$1
\dashv		LLNL M&S Total		M&S	0	1	\$0.00	\$0.00	\$0.00	\$1.00	\$0.00	\$0.00	\$0
775	1.3.1.6.3.4	Mirror mount	LLNL	M&S	1	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$567.00	\$535.05	\$4,102
\dashv		LLNL M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0
776	1.3.1.6.3.4	Mirror motorized rotation stage	LLNL	M&S	1	0 wks	\$0.00	\$8,000.00	\$0.00	\$8,000.00	\$1,512.00	\$1,426.80	\$10,938
		LLNL M&S Total		M&S	0	8,000	\$0.00	\$0.00	\$0.00	\$8,000.00	\$0.00	\$0.00	\$0
777	1.3.1.6.3.4	Base plate	LLNL	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$378.00	\$594.50	\$2,972
\dashv		LLNL M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0
778	1.3.1.6.3.4	Camera Base Plate	LLNL	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$378.00	\$594.50	\$2,972
\dashv		LLNL M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0
779	1.3.1.6.3.4	Camera motorized horizontal stage	LLNL	M&S	1	0 wks	\$0.00	\$5,000.00	\$0.00	\$5,000.00	\$945.00	\$891.75	\$6,836
		LLNL M&S Total		M&S	0	5,000	\$0.00	\$0.00	\$0.00	\$5,000.00	\$0.00	\$0.00	\$(
780	1.3.1.6.3.4	Camera motorized verticle stage	LLNL	M&S	1	0 wks	\$0.00	\$8,000.00	\$0.00	\$8,000.00	\$1,512.00		\$10,938
		LLNL M&S Total		M&S	0	8,000	\$0.00	\$0.00	\$0.00	\$8,000.00	\$0.00	\$0.00	\$(
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ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		LLNL M&S Total		M&S	0	8,000	\$0.00	\$0.00	\$0.00	\$8,000.00	\$0.00	\$0.00	\$0.00
4782	1.3.1.6.3.4	Motor Computer I/F	LLNL	M&S	1	0 wks	\$0.00	\$4,000.00	\$0.00	\$4,000.00	\$756.00	\$713.40	\$5,469.40
		LLNL M&S Total		M&S	0	4,000	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$0.00
4783	1.3.1.6.3.4	Scintillating Crystal	LLNL	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$378.00	\$594.50	\$2,972.50
		LLNL M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.00
4784	1.3.1.6.3.4	Prism	LLNL	M&S	1	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
		LLNL M&S Total		M&S	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
4785	1.3.1.6.3.4	Prism mount	LLNL	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$189.00	\$297.25	\$1,486.25
		LLNL M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.00
4786	1.3.1.6.3.4	Prism to objective motorized stage	LLNL	M&S	1	0 wks	\$0.00	\$8,000.00	\$0.00	\$8,000.00	\$1,512.00	\$1,426.80	\$10,938.80
		LLNL M&S Total		M&S	0	8,000	\$0.00	\$0.00	\$0.00	\$8,000.00	\$0.00	\$0.00	\$0.00
4787	1.3.1.6.3.4	Microscope objective	LLNL	M&S	1	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$567.00	\$535.05	\$4,102.05
		LLNL M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0.00
4788	1.3.1.6.3.4		LLNL	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$189.00	\$178.35	\$1,367.35
4700	1.0.1.0.0.4	LLNL M&S Total	LEIVE	M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.00
1300					0								
4789	1.3.1.6.3.4	·	LLNL	M&S	1	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$567.00	\$535.05	\$4,102.05
		LLNL M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0.00
4790	1.3.1.6.3.4		LLNL	M&S	2	0 wks	\$0.00	\$8,000.00	\$0.00	\$8,000.00	\$1,512.00	\$2,378.00	\$11,890.00
		LLNL M&S Total		M&S	0	8,000	\$0.00	\$0.00	\$0.00	\$8,000.00	\$0.00	\$0.00	\$0.00
4791	1.3.1.6.3.4	TE Cooler	LLNL	M&S	1	0 wks	\$0.00	\$4,000.00	\$0.00	\$4,000.00	\$756.00	\$713.40	\$5,469.40
		LLNL M&S Total		M&S	0	4,000	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$0.00
4792	1.3.1.6.3.4	CCD Analog board	LLNL	M&S	2	0 wks	\$0.00	\$6,000.00	\$0.00	\$6,000.00	\$1,134.00	\$1,783.50	\$8,917.50
		LLNL M&S Total		M&S	0	6,000	\$0.00	\$0.00	\$0.00	\$6,000.00	\$0.00	\$0.00	\$0.00
4793	1.3.1.6.3.4	Camera Digital board	LLNL	M&S	2	0 wks	\$0.00	\$6,000.00	\$0.00	\$6,000.00	\$1,134.00	\$1,783.50	\$8,917.50
		LLNL M&S Total		M&S	0	6,000	\$0.00	\$0.00	\$0.00	\$6,000.00	\$0.00	\$0.00	\$0.00
4794	1.3.1.6.3.4	Microchannel plate HV board	LLNL	M&S	1	0 wks	\$0.00	\$4,000.00	\$0.00	\$4,000.00	\$756.00	\$713.40	\$5,469.40
		LLNL M&S Total		M&S	0	4,000	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$0.00
4795	1.3.1.6.3.4	Camera Interface board	LLNL	M&S	2	0 wks	\$0.00	\$6,000.00	\$0.00	\$6,000.00	\$1,134.00	\$1,783.50	\$8,917.50
		LLNL M&S Total		M&S	0	6,000	\$0.00	\$0.00	\$0.00	\$6,000.00	\$0.00	\$0.00	\$0.00
4796	1.3.1.6.3.4	Computer Interface board	LLNL	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$378.00	\$594.50	\$2,972.50
		LLNL M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.00
4797	1.3.1.6.3.4	Camera vaccum housing	LLNL	M&S	2	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$567.00	\$891.75	\$4,458.75
4131	1.5.1.0.5.4	-	LLINL										
130		LLNL M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0.00
4798	1.3.1.6.3.4	Cold finger	LLNL	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$189.00	\$297.25	\$1,486.25
		LLNL M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.00

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ID		Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
799	1.3.1.6.3.4	Chiller	LLNL	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$378.00	\$594.50	\$2,972.5
\neg		LLNL M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.0
800	1.3.1.6.3.4	Chiller Hardware	LLNL	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$189.00	\$297.25	\$1,486.
		LLNL M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.0
801	1.3.1.6.3.4	Electrical Hardware	LLNL	M&S	2	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$567.00	\$891.75	\$4,458.
\dashv		LLNL M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0.
802	1.3.1.6.3.4	Feed throughs	LLNL	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$189.00	\$297.25	\$1,486
\dashv		LLNL M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.
303	1.3.1.6.3.4	Mechanical Hardware	LLNL	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$189.00	\$297.25	\$1,486
\dashv		LLNL M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.
304	1.3.1.6.3.4	Scatter plane Base Plate	LLNL	B&H	2	0.6 wks	\$0.00	\$0.00	\$1,368.00	\$1,368.00	\$1,340.64	\$677.16	\$3,385.
\dashv		LLNL Mech. Fab: Machine Shop		B&H	0	0.6 wks	\$0.00	\$0.00	\$0.00	\$1,368.00	\$0.00	\$0.00	\$0.
305	1.3.1.6.3.4	Be foil mount	LLNL	B&H	2	0.6 wks	\$0.00	\$0.00	\$1,368.00	\$1,368.00	\$1,340.64	\$677.16	\$3,385
\dashv		LLNL Mech. Fab: Machine Shop		B&H	0	0.6 wks	\$0.00	\$0.00	\$0.00	\$1,368.00	\$0.00	\$0.00	\$0.
306	1.3.1.6.3.4	Camera Base Plate	LLNL	B&H	2	0.6 wks	\$0.00	\$0.00	\$1,368.00	\$1,368.00	\$1,340.64	\$677.16	\$3,385
-		LLNL Mech. Fab: Machine Shop		B&H	0	0.6 wks	\$0.00	\$0.00	\$0.00	\$1,368.00	\$0.00	\$0.00	\$0
807	1.3.1.6.3.4	Prism to objective I/F	LLNL	B&H	2	0.6 wks	\$0.00	\$0.00	\$1,368.00	\$1,368.00	\$1,340.64	\$677.16	\$3,385
-		LLNL Mech. Fab: Machine Shop		B&H	0	0.6 wks	\$0.00	\$0.00	\$0.00	\$1,368.00	\$0.00	\$0.00	\$0
308	1.3.1.6.3.4	Objective to CCD I/F	LLNL	B&H	2	0.6 wks	\$0.00	\$0.00	\$1,368.00	\$1,368.00	\$1,340.64	\$677.16	\$3,385
\dashv		LLNL Mech. Fab: Machine Shop		B&H	0	0.6 wks	\$0.00	\$0.00	\$0.00	\$1,368.00	\$0.00	\$0.00	\$0
309	1.3.1.6.3.4	Camera housing and Cold finger	LLNL	B&H	2	0.6 wks	\$0.00	\$0.00	\$1,368.00	\$1,368.00	\$1,340.64	\$677.16	\$3,385
\dashv		LLNL Mech. Fab: Machine Shop		B&H	0	0.6 wks	\$0.00	\$0.00	\$0.00	\$1,368.00	\$0.00	\$0.00	\$0.
310	1.3.1.6.3.4	Mechanical assembly	LLNL	B&H	2	1.8 wks	\$0.00	\$0.00	\$3,744.00	\$3,744.00	\$3,669.12	\$1,853.28	\$9,266
\dashv		LLNL Mech. Fab: Assembly Tech		B&H	0	1.8 wks	\$0.00	\$0.00	\$0.00	\$3,744.00	\$0.00	\$0.00	\$0.
311	1.3.1.6.3.4	Camera Electrical assembly	LLNL	B&H	2	0.6 wks	\$0.00	\$0.00	\$1,248.00	\$1,248.00	\$1,223.04	\$617.76	\$3,088
		LLNL PCD:Inst-Cabling-Elec Fab		B&H	0	0.6 wks	\$0.00	\$0.00	\$0.00	\$1,248.00	\$0.00	\$0.00	\$0.
312	1.3.1.6.3.4	Software installation	LLNL	ED&I	2	0.33 wks	\$0.00	\$0.00	\$765.60	\$765.60	\$750.29	\$378.97	\$1,894
-		LLNL Controls: Programmer		ED&I	0	0.33 wks	\$0.00	\$0.00	\$0.00	\$765.60	\$0.00	\$0.00	\$0
313	1.3.1.6.3.4	Electrical acceptance test	LLNL	ED&I	2	0.33 wks	\$0.00	\$0.00	\$818.40	\$818.40	\$802.03	\$405.11	\$2,025
-		LLNL Electrical Engineer		ED&I	0	0.33 wks	\$0.00	\$0.00	\$0.00	\$818.40	\$0.00	\$0.00	\$0
814	1.3.1.6.3.4	Mechanical acceptance test	LLNL	ED&I	2	1.8 wks	\$0.00	\$0.00	\$4,536.00	\$4,536.00	\$4,445.28	\$2,245.32	\$11,226
\dashv		LLNL Mechanical Engineer		ED&I	0	1.8 wks	\$0.00	\$0.00	\$0.00	\$4,536.00	\$0.00	\$0.00	\$0
315	1.3.1.6.3.4	Alignment and focus	LLNL	ED&I	2	1.8 wks	\$0.00	\$0.00	\$3,888.00	\$3,888.00	\$3,810.24	\$1,924.56	\$9,622
-		LLNL Physicist -Scientist		ED&I	0	1.8 wks	\$0.00	\$0.00	\$0.00	\$3,888.00	\$0.00	\$0.00	\$0
316	1.3.1.6.3.4	-	LLNL	ED&I	2	1.8 wks	\$0.00	\$0.00	\$3.888.00	\$3,888.00	\$3.810.24	\$1,924.56	\$9,622

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ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		LLNL Physicist -Scientist		ED&I	0	1.8 wks	\$0.00	\$0.00	\$0.00	\$3,888.00	\$0.00	\$0.00	\$0.
317	1.3.1.6.3.4	System acceptance test	LLNL	ED&I	2	1.8 wks	\$0.00	\$0.00	\$3,888.00	\$3,888.00	\$3,810.24	\$1,924.56	\$9,622.
		LLNL Physicist -Scientist		ED&I	0	1.8 wks	\$0.00	\$0.00	\$0.00	\$3,888.00	\$0.00	\$0.00	\$0.
318	1.3.1.6.3.5	Production units	LLNL		0	19.8 wks	\$0.00	\$342,000.00	\$43,320.00	\$385,320.00	\$107,091.60	\$107,051.40	\$599,463.
319	1.3.1.6.3.5	Be foil	LLNL	M&S	2	0 wks	\$0.00	\$15,000.00	\$0.00	\$15,000.00	\$2,835.00	\$4,458.75	\$22,293
		LLNL M&S Total		M&S	0	15,000	\$0.00	\$0.00	\$0.00	\$15,000.00	\$0.00	\$0.00	\$0
320	1.3.1.6.3.5	Be foil mount	LLNL	M&S	2	0 wks	\$0.00	\$9,000.00	\$0.00	\$9,000.00	\$1,701.00	\$2,675.25	\$13,376
\dashv		LLNL M&S Total		M&S	0	9,000	\$0.00	\$0.00	\$0.00	\$9,000.00	\$0.00	\$0.00	\$0
321	1.3.1.6.3.5	Mirror mount	LLNL	M&S	1	0 wks	\$0.00	\$9,000.00	\$0.00	\$9,000.00	\$1,701.00	\$1,605.15	\$12,306
\dashv		LLNL M&S Total		M&S	0	9,000	\$0.00	\$0.00	\$0.00	\$9,000.00	\$0.00	\$0.00	\$0
322	1.3.1.6.3.5	Mirror motorized rotation stage	LLNL	M&S	1	0 wks	\$0.00	\$24,000.00	\$0.00	\$24,000.00	\$4,536.00	\$4,280.40	\$32,816
\dashv		LLNL M&S Total		M&S	0	24,000	\$0.00	\$0.00	\$0.00	\$24,000.00	\$0.00	\$0.00	\$0
323	1.3.1.6.3.5	Base plate	LLNL	M&S	2	0 wks	\$0.00	\$6,000.00	\$0.00	\$6,000.00	\$1,134.00	\$1,783.50	\$8,917
\dashv		LLNL M&S Total		M&S	0	6,000	\$0.00	\$0.00	\$0.00	\$6,000.00	\$0.00	\$0.00	\$0
24	1.3.1.6.3.5	Camera Base Plate	LLNL	M&S	2	0 wks	\$0.00	\$6,000.00	\$0.00	\$6,000.00	\$1,134.00		\$8,91
	1.0.1.0.0.0	LLNL M&S Total	ELIVE	M&S	0	6,000	\$0.00	\$0.00	\$0.00	\$6,000.00	\$0.00	\$0.00	\$0,51
25	1.3.1.6.3.5		LLNL	M&S	0	0,000	\$0.00	\$15,000.00	\$0.00	\$15,000.00	\$2,835.00		\$20,51
525	1.3.1.6.3.3	-	LLINL		'								
		LLNL M&S Total		M&S	0	15,000	\$0.00	\$0.00	\$0.00	\$15,000.00	\$0.00		\$0
326	1.3.1.6.3.5	· ·	LLNL	M&S	1	0 wks	\$0.00	\$24,000.00	\$0.00	\$24,000.00	\$4,536.00		\$32,810
		LLNL M&S Total		M&S	0	24,000	\$0.00	\$0.00	\$0.00	\$24,000.00	\$0.00		\$6
327	1.3.1.6.3.5	Motor Controller	LLNL	M&S	1	0 wks	\$0.00	\$24,000.00	\$0.00	\$24,000.00	\$4,536.00	\$4,280.40	\$32,81
		LLNL M&S Total		M&S	0	24,000	\$0.00	\$0.00	\$0.00	\$24,000.00	\$0.00	\$0.00	\$0
328	1.3.1.6.3.5	Motor Computer I/F	LLNL	M&S	1	0 wks	\$0.00	\$12,000.00	\$0.00	\$12,000.00	\$2,268.00	\$2,140.20	\$16,40
		LLNL M&S Total		M&S	0	12,000	\$0.00	\$0.00	\$0.00	\$12,000.00	\$0.00	\$0.00	\$6
329	1.3.1.6.3.5	Scintillating Crystal	LLNL	M&S	2	0 wks	\$0.00	\$6,000.00	\$0.00	\$6,000.00	\$1,134.00	\$1,783.50	\$8,91
\dashv		LLNL M&S Total		M&S	0	6,000	\$0.00	\$0.00	\$0.00	\$6,000.00	\$0.00	\$0.00	\$6
330	1.3.1.6.3.5	Prism	LLNL	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$189.00	\$178.35	\$1,36
\dashv		LLNL M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$6
31	1.3.1.6.3.5	Prism mount	LLNL	M&S	2	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$567.00	\$891.75	\$4,45
\dashv		LLNL M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$1
32	1.3.1.6.3.5	Prism to objective motorized stage	LLNL	M&S	1	0 wks	\$0.00	\$24,000.00	\$0.00	\$24,000.00	\$4,536.00	\$4,280.40	\$32,81
-		LLNL M&S Total		M&S	0	24,000	\$0.00	\$0.00	\$0.00	\$24,000.00	\$0.00		\$
333	1.3.1.6.3.5		LLNL	M&S	1	0 wks	\$0.00	\$8,000.00	\$0.00	\$8,000.00	\$1,512.00		\$10,93
		LLNL M&S Total		M&S	0	8,000	\$0.00	\$0.00	\$0.00	\$8,000.00	\$0.00	\$0.00	\$10,00
334	1.3.1.6.3.5		LLNL	M&S		0,000	\$0.00	\$4,000.00	\$0.00	\$4,000.00	\$756.00		\$5,469

I CI	S	CD1	TEC

						LCLS_CD1_TEC	,						
ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		LLNL M&S Total		M&S	0	4,000	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$0.00
4835	1.3.1.6.3.5	Microchannel plate	LLNL	M&S	1	0 wks	\$0.00	\$8,000.00	\$0.00	\$8,000.00	\$1,512.00	\$1,426.80	\$10,938.80
		LLNL M&S Total		M&S	0	8,000	\$0.00	\$0.00	\$0.00	\$8,000.00	\$0.00	\$0.00	\$0.00
4836	1.3.1.6.3.5	120 Hz CCD	LLNL	M&S	2	0 wks	\$0.00	\$24,000.00	\$0.00	\$24,000.00	\$4,536.00	\$7,134.00	\$35,670.00
		LLNL M&S Total		M&S	0	24,000	\$0.00	\$0.00	\$0.00	\$24,000.00	\$0.00	\$0.00	\$0.00
4837	1.3.1.6.3.5	TE Cooler	LLNL	M&S	1	0 wks	\$0.00	\$12,000.00	\$0.00	\$12,000.00	\$2,268.00	\$2,140.20	\$16,408.20
		LLNL M&S Total		M&S	0	12,000	\$0.00	\$0.00	\$0.00	\$12,000.00	\$0.00	\$0.00	\$0.00
4838	1.3.1.6.3.5	CCD Analog board	LLNL	M&S	2	0 wks	\$0.00	\$18,000.00	\$0.00	\$18,000.00	\$3,402.00	\$5,350.50	\$26,752.50
		LLNL M&S Total		M&S	0	18,000	\$0.00	\$0.00	\$0.00	\$18,000.00	\$0.00	\$0.00	\$0.00
4839	1.3.1.6.3.5	Camera Digital board	LLNL	M&S	2	0 wks	\$0.00	\$18,000.00	\$0.00	\$18,000.00	\$3,402.00	\$5,350.50	\$26,752.50
		LLNL M&S Total		M&S	0	18,000	\$0.00	\$0.00	\$0.00	\$18,000.00	\$0.00	\$0.00	\$0.00
4840	1.3.1.6.3.5	Microchannel plate HV board	LLNL	M&S	4	0 wks	\$0.00	\$12,000.00	\$0.00	\$12,000.00	\$2,268.00	\$7,134.00	\$21,402.00
		LLNL M&S Total		M&S	0	12,000	\$0.00	\$0.00	\$0.00	\$12,000.00	\$0.00	\$0.00	\$0.00
4841	1.3.1.6.3.5		LLNL	M&S	2	0 wks	\$0.00	\$18,000.00	\$0.00	\$18,000.00	\$3,402.00	\$5,350.50	\$26,752.50
		LLNL M&S Total		M&S	0	18,000	\$0.00	\$0.00	\$0.00	\$18,000.00	\$0.00	\$0.00	\$0.00
4842	1.3.1.6.3.5		LLNL	M&S	2	0 wks	\$0.00	\$5,000.00	\$0.00	\$5,000.00	\$945.00	\$1,486.25	\$7,431.25
4842	1.3.1.6.3.5	·	LLNL										
		LLNL M&S Total		M&S	0	5,000	\$0.00	\$0.00	\$0.00	\$5,000.00	\$0.00	\$0.00	\$0.00
4843	1.3.1.6.3.5	, and the second	LLNL	M&S	2	0 wks	\$0.00	\$9,000.00	\$0.00	\$9,000.00	\$1,701.00	\$2,675.25	\$13,376.25
		LLNL M&S Total		M&S	0	9,000	\$0.00	\$0.00	\$0.00	\$9,000.00	\$0.00	\$0.00	\$0.00
4844	1.3.1.6.3.5	Cold finger	LLNL	M&S	2	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$567.00	\$891.75	\$4,458.75
		LLNL M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0.00
4845	1.3.1.6.3.5	Chiller	LLNL	M&S	2	0 wks	\$0.00	\$6,000.00	\$0.00	\$6,000.00	\$1,134.00	\$1,783.50	\$8,917.50
		LLNL M&S Total		M&S	0	6,000	\$0.00	\$0.00	\$0.00	\$6,000.00	\$0.00	\$0.00	\$0.00
4846	1.3.1.6.3.5	Chiller Hardware	LLNL	M&S	2	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$567.00	\$891.75	\$4,458.75
		LLNL M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0.00
4847	1.3.1.6.3.5	Electrical Hardware	LLNL	M&S	2	0 wks	\$0.00	\$9,000.00	\$0.00	\$9,000.00	\$1,701.00	\$2,675.25	\$13,376.25
		LLNL M&S Total		M&S	0	9,000	\$0.00	\$0.00	\$0.00	\$9,000.00	\$0.00	\$0.00	\$0.00
4848	1.3.1.6.3.5	Feed throughs	LLNL	M&S	2	0 wks	\$0.00	\$4,000.00	\$0.00	\$4,000.00	\$756.00	\$1,189.00	\$5,945.00
		LLNL M&S Total		M&S	0	4,000	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$0.00
4849	1.3.1.6.3.5	Mechanical Hardware	LLNL	M&S	2	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$567.00	\$891.75	\$4,458.75
		LLNL M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0.00
4850	1.3.1.6.3.5		LLNL	B&H	2	0.3 wks	\$0.00	\$0.00	\$684.00	\$684.00	\$670.32	\$338.58	\$1,692.90
.550		LLNL Mech. Fab: Machine Shop	LLIVE	B&H	0	0.3 wks	\$0.00	\$0.00	\$0.00	\$684.00	\$0.00	\$0.00	\$0.00
4054	424005	· ·	1150										
4851	1.3.1.6.3.5		LLNL	B&H	2	0.3 wks	\$0.00	\$0.00	\$684.00	\$684.00	\$670.32	\$338.58	\$1,692.90
		LLNL Mech. Fab: Machine Shop		B&H	0	0.3 wks	\$0.00	\$0.00	\$0.00	\$684.00	\$0.00	\$0.00	\$0.00

I CI	S	CD1	TEC

ID		Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
852	1.3.1.6.3.5	Camera Base Plate	LLNL	B&H	2	0.3 wks	\$0.00	\$0.00	\$684.00	\$684.00	\$670.32	\$338.58	\$1,692.9
		LLNL Mech. Fab: Machine Shop		B&H	0	0.3 wks	\$0.00	\$0.00	\$0.00	\$684.00	\$0.00	\$0.00	\$0.0
853	1.3.1.6.3.5	Prism to objective I/F	LLNL	B&H	2	0.3 wks	\$0.00	\$0.00	\$684.00	\$684.00	\$670.32	\$338.58	\$1,692.
		LLNL Mech. Fab: Machine Shop		B&H	0	0.3 wks	\$0.00	\$0.00	\$0.00	\$684.00	\$0.00	\$0.00	\$0.0
854	1.3.1.6.3.5	Objective to CCD I/F	LLNL	B&H	2	0.3 wks	\$0.00	\$0.00	\$684.00	\$684.00	\$670.32	\$338.58	\$1,692.
		LLNL Mech. Fab: Machine Shop		B&H	0	0.3 wks	\$0.00	\$0.00	\$0.00	\$684.00	\$0.00	\$0.00	\$0.
B55	1.3.1.6.3.5	Camera housing and Cold finger	LLNL	B&H	2	0.3 wks	\$0.00	\$0.00	\$684.00	\$684.00	\$670.32	\$338.58	\$1,692
		LLNL Mech. Fab: Machine Shop		B&H	0	0.3 wks	\$0.00	\$0.00	\$0.00	\$684.00	\$0.00	\$0.00	\$0.
356	1.3.1.6.3.5	Mechanical assembly	LLNL	B&H	2	3.6 wks	\$0.00	\$0.00	\$7,488.00	\$7,488.00	\$7,338.24	\$3,706.56	\$18,532
		LLNL Mech. Fab: Assembly Tech		B&H	0	3.6 wks	\$0.00	\$0.00	\$0.00	\$7,488.00	\$0.00	\$0.00	\$0.
357	1.3.1.6.3.5	Camera Electrical assembly	LLNL	B&H	2	1.2 wks	\$0.00	\$0.00	\$2,496.00	\$2,496.00	\$2,446.08	\$1,235.52	\$6,177
\dashv		LLNL PCD:Inst-Cabling-Elec Fab		B&H	0	1.2 wks	\$0.00	\$0.00	\$0.00	\$2,496.00	\$0.00	\$0.00	\$0.
358	1.3.1.6.3.5	Software installation	LLNL	ED&I	2	0.6 wks	\$0.00	\$0.00	\$1,392.00	\$1,392.00	\$1,364.16	\$689.04	\$3,445
\dashv		LLNL Controls: Programmer		ED&I	0	0.6 wks	\$0.00	\$0.00	\$0.00	\$1,392.00	\$0.00	\$0.00	\$0.
359	1.3.1.6.3.5	Electrical acceptance test	LLNL	ED&I	2	0.6 wks	\$0.00	\$0.00	\$1,488.00	\$1,488.00	\$1,458.24	\$736.56	\$3,682
\dashv		LLNL Electrical Engineer		ED&I	0	0.6 wks	\$0.00	\$0.00	\$0.00	\$1,488.00	\$0.00	\$0.00	\$0
60	1.3.1.6.3.5	Mechanical acceptance test	LLNL	ED&I	2	1.2 wks	\$0.00	\$0.00	\$3,024.00	\$3,024.00	\$2,963.52	\$1,496.88	\$7,484
\dashv		LLNL Mechanical Engineer		ED&I	0	1.2 wks	\$0.00	\$0.00	\$0.00	\$3,024.00	\$0.00	\$0.00	\$0
361	1.3.1.6.3.5	Alignment and focus	LLNL	ED&I	2	3.6 wks	\$0.00	\$0.00	\$7,776.00	\$7,776.00	\$7,620.48	\$3,849.12	\$19,245
\dashv		LLNL Physicist -Scientist		ED&I	0	3.6 wks	\$0.00	\$0.00	\$0.00	\$7,776.00	\$0.00	\$0.00	\$0
362	1.3.1.6.3.5	Calibration	LLNL	ED&I	2	3.6 wks	\$0.00	\$0.00	\$7,776.00	\$7,776.00	\$7,620.48	\$3,849.12	\$19,245
\dashv		LLNL Physicist -Scientist		ED&I	0	3.6 wks	\$0.00	\$0.00	\$0.00	\$7,776.00	\$0.00	\$0.00	\$0
363	1.3.1.6.3.5	System acceptance test	LLNL	ED&I	2	3.6 wks	\$0.00	\$0.00	\$7,776.00	\$7,776.00	\$7,620.48	\$3,849.12	\$19,245
\dashv		LLNL Physicist -Scientist		ED&I	0	3.6 wks	\$0.00	\$0.00	\$0.00	\$7,776.00	\$0.00	\$0.00	\$0
864	1.3.1.6.4	Micro Strip Ion Chamber			0	69.9 wks	\$0.00	\$930,000.00	\$149,884.00	\$1,079,884.00	\$322,656.32	\$288,093.68	\$1,690,634.
365	1.3.1.6.4.1	Reserved	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
366	1.3.1.6.4.2	Reserved	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
367	1.3.1.6.4.3	Data Acquisition	LLNL		0	1 wk	\$0.00	\$36,000.00	\$2,080.00	\$38,080.00	\$8,842.40	\$12,087.30	\$59,009
368	1.3.1.6.4.3	Computer labor	LLNL	B&H	2	1 wk	\$0.00	\$0.00	\$2,080.00	\$2,080.00	\$2,038.40	\$1,029.60	\$5,148
\dashv		LLNL PCD:Technician		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,080.00	\$0.00	\$0.00	\$0
69	1.3.1.6.4.3	Computer	LLNL	M&S	2	0 wks	\$0.00	\$8,000.00	\$0.00	\$8,000.00	\$1,512.00	\$2,378.00	\$11,890
\dashv		LLNL M&S Total		M&S	0	8,000	\$0.00	\$0.00	\$0.00	\$8,000.00	\$0.00	\$0.00	\$0
70	1.3.1.6.4.3	Monitor	LLNL	M&S	3	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$567.00	\$1,248.45	\$4,815
\dashv		LLNL M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0
871	1.3.1.6.4.3	Stage controller Channel-Card	LLNL	M&S	2	0 wks	\$0.00	\$7,000.00	\$0.00	\$7,000.00	\$1,323.00	\$2,080.75	\$10,403

I CI	S	CD1	TEC

ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		LLNL M&S Total		M&S	0	7,000	\$0.00	\$0.00	\$0.00	\$7,000.00	\$0.00	\$0.00	\$0.
372	1.3.1.6.4.3		LLNL	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$189.00		\$1,486
		LLNL M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.
373	1.3.1.6.4.3	Diagnostic Hardware & Controller	LLNL	M&S	2	0 wks	\$0.00	\$17,000.00	\$0.00	\$17,000.00	\$3,213.00	\$5,053.25	\$25,266
		LLNL M&S Total		M&S	0	17,000	\$0.00	\$0.00	\$0.00	\$17,000.00	\$0.00	\$0.00	\$0
374	1.3.1.6.4.4	Prototype	LLNL		0	17.1 wks	\$0.00	\$168,000.00	\$37,548.00	\$205,548.00	\$68,549.04	\$59,131.16	\$333,228
375	1.3.1.6.4.4	Chamber	LLNL	M&S	2	0 wks	\$0.00	\$40,000.00	\$0.00	\$40,000.00	\$7,560.00	\$11,890.00	\$59,450
		LLNL M&S Total		M&S	0	40,000	\$0.00	\$0.00	\$0.00	\$40,000.00	\$0.00	\$0.00	\$0
376	1.3.1.6.4.4	Chamber Stand	LLNL	M&S	2	0 wks	\$0.00	\$5,000.00	\$0.00	\$5,000.00	\$945.00	\$1,486.25	\$7,431
		LLNL M&S Total		M&S	0	5,000	\$0.00	\$0.00	\$0.00	\$5,000.00	\$0.00	\$0.00	\$0
377	1.3.1.6.4.4	System Controller Multiloop controller	LLNL	M&S	1	0 wks	\$0.00	\$15,000.00	\$0.00	\$15,000.00	\$2,835.00	\$2,675.25	\$20,510
		LLNL M&S Total		M&S	0	15,000	\$0.00	\$0.00	\$0.00	\$15,000.00	\$0.00	\$0.00	\$0
378	1.3.1.6.4.4	Pressure, hardware Monitor "Sensors"	LLNL	M&S	1	0 wks	\$0.00	\$6,000.00	\$0.00	\$6,000.00	\$1,134.00	\$1,070.10	\$8,204
		LLNL M&S Total		M&S	0	6,000	\$0.00	\$0.00	\$0.00	\$6,000.00	\$0.00	\$0.00	\$0
79	1.3.1.6.4.4	Pressure Baratron MKS Head	LLNL	M&S	1	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$378.00	\$356.70	\$2,734
		LLNL M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$6
80	1.3.1.6.4.4	Pressure Controller Baratron MKS	LLNL	M&S	1	0 wks	\$0.00	\$5,000.00	\$0.00	\$5,000.00	\$945.00	\$891.75	\$6,83
		LLNL M&S Total		M&S	0	5,000	\$0.00	\$0.00	\$0.00	\$5,000.00	\$0.00	\$0.00	\$0
881	1.3.1.6.4.4		LLNL	M&S	1	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$567.00		\$4,10
		LLNL M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00		\$0
82	1.3.1.6.4.4		LLNL	M&S	1	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$378.00		\$2,73
	1.3.1.0.4.4	LLNL M&S Total	LLINE	M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$2,73
					0								
883	1.3.1.6.4.4		LLNL	M&S	1	0 wks	\$0.00	\$6,000.00	\$0.00	\$6,000.00	\$1,134.00		\$8,20
		LLNL M&S Total		M&S	0	6,000	\$0.00	\$0.00	\$0.00	\$6,000.00	\$0.00	\$0.00	\$0
84	1.3.1.6.4.4		LLNL	M&S	2	0 wks	\$0.00	\$4,000.00	\$0.00	\$4,000.00	\$756.00		\$5,94
		LLNL M&S Total		M&S	0	4,000	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00		\$6
85	1.3.1.6.4.4	Interface-Mount to Chamber	LLNL	M&S	2	0 wks	\$0.00	\$5,000.00	\$0.00	\$5,000.00	\$945.00	\$1,486.25	\$7,43
		LLNL M&S Total		M&S	0	5,000	\$0.00	\$0.00	\$0.00	\$5,000.00	\$0.00	\$0.00	\$0
86	1.3.1.6.4.4	Chamber feed through	LLNL	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$378.00	\$594.50	\$2,97
		LLNL M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$
87	1.3.1.6.4.4	lon gage and read out	LLNL	M&S	1	0 wks	\$0.00	\$4,000.00	\$0.00	\$4,000.00	\$756.00	\$713.40	\$5,46
		LLNL M&S Total		M&S	0	4,000	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$6
888	1.3.1.6.4.4	Turbo Pump 521	LLNL	M&S	1	0 wks	\$0.00	\$32,000.00	\$0.00	\$32,000.00	\$6,048.00	\$5,707.20	\$43,75
		LLNL M&S Total		M&S	0	32,000	\$0.00	\$0.00	\$0.00	\$32,000.00	\$0.00	\$0.00	\$6
389	1.3.1.6.4.4	Gate Valves 4 inch	LLNL	M&S	1	0 wks	\$0.00	\$4,000.00	\$0.00	\$4,000.00	\$756.00	\$713.40	\$5,469

10	CD1	TEC	

		T											
ID	CWBS	Task Name LLNL M&S Total	OBS	PHASE M&S	Risk	Units 4,000	PED (Direct)	M&S (Direct) \$0.00	Labor (Direct)	Direct Cost \$4,000.00	Overhead Cost \$0.00	Contingency Cost \$0.00	Total Cost
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4890	1.3.1.6.4.4	Cathode	LLNL	M&S	2	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
		LLNL M&S Total		M&S	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
1891	1.3.1.6.4.4	Anode	LLNL	M&S	2	0 wks	\$0.00	\$6,000.00	\$0.00	\$6,000.00	\$1,134.00	\$1,783.50	\$8,917.50
		LLNL M&S Total		M&S	0	6,000	\$0.00	\$0.00	\$0.00	\$6,000.00	\$0.00	\$0.00	\$0.00
1892	1.3.1.6.4.4	Amp / Disc	LLNL	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$189.00	\$297.25	\$1,486.2
		LLNL M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.00
1893	1.3.1.6.4.4	ADC	LLNL	M&S	2	0 wks	\$0.00	\$12,000.00	\$0.00	\$12,000.00	\$2,268.00	\$3,567.00	\$17,835.0
		LLNL M&S Total		M&S	0	12,000	\$0.00	\$0.00	\$0.00	\$12,000.00	\$0.00	\$0.00	\$0.00
4894	1.3.1.6.4.4	Computer I/F	LLNL	M&S	2	0 wks	\$0.00	\$7,000.00	\$0.00	\$7,000.00	\$1,323.00	\$2,080.75	\$10,403.7
		LLNL M&S Total		M&S	0	7,000	\$0.00	\$0.00	\$0.00	\$7,000.00	\$0.00	\$0.00	\$0.00
1895	1.3.1.6.4.4	HV Supply	LLNL	M&S	2	0 wks	\$0.00	\$7,000.00	\$0.00	\$7,000.00	\$1,323.00	\$2,080.75	\$10,403.7
		LLNL M&S Total		M&S	0	7,000	\$0.00	\$0.00	\$0.00	\$7,000.00	\$0.00	\$0.00	\$0.00
4896	1.3.1.6.4.4	Chamber	LLNL	B&H	2	0.3 wks	\$0.00	\$0.00	\$684.00	\$684.00	\$670.32	\$338.58	\$1,692.90
		LLNL Mech. Fab: Machine Shop		B&H	0	0.3 wks	\$0.00	\$0.00	\$0.00	\$684.00	\$0.00	\$0.00	\$0.00
4897	1.3.1.6.4.4	Chamber Stand	LLNL	B&H	2	0.3 wks	\$0.00	\$0.00	\$684.00	\$684.00	\$670.32	\$338.58	\$1,692.9
		LLNL Mech. Fab: Machine Shop		B&H	0	0.3 wks	\$0.00	\$0.00	\$0.00	\$684.00	\$0.00	\$0.00	\$0.00
1898	1.3.1.6.4.4	Fixtures	LLNL	B&H	2	0.9 wks	\$0.00	\$0.00	\$2,052.00	\$2,052.00	\$2,010.96	\$1,015.74	\$5,078.70
		LLNL Mech. Fab: Machine Shop		B&H	0	0.9 wks	\$0.00	\$0.00	\$0.00	\$2,052.00	\$0.00	\$0.00	\$0.00
4899	1.3.1.6.4.4	Turbopumps Labor and Assembly	LLNL	B&H	2	4.5 wks	\$0.00	\$0.00	\$9,360.00	\$9,360.00	\$9,172.80	\$4,633.20	\$23,166.0
		LLNL Mech. Fab: Assembly Tech		B&H	0	4.5 wks	\$0.00	\$0.00	\$0.00	\$9,360.00	\$0.00	\$0.00	\$0.0
4900	1.3.1.6.4.4	Chamber Labor and Assembly	LLNL	B&H	2	6 wks	\$0.00	\$0.00	\$12,480.00	\$12,480.00	\$12,230.40	\$6,177.60	\$30,888.0
		LLNL Mech. Fab: Assembly Tech		B&H	0	6 wks	\$0.00	\$0.00	\$0.00	\$12,480.00	\$0.00	\$0.00	\$0.00
4901	1.3.1.6.4.4	Focal Plane Labor and Assembly	LLNL	ED&I	2	3 wks	\$0.00	\$0.00	\$7,560.00	\$7,560.00	\$7,408.80	\$3,742.20	\$18,711.0
		LLNL PCD:Engineer		ED&I	0	3 wks	\$0.00	\$0.00	\$0.00	\$7,560.00	\$0.00	\$0.00	\$0.00
4902	1.3.1.6.4.4	Electrical cceptancs test	LLNL	ED&I	2	0.6 wks	\$0.00	\$0.00	\$1,488.00	\$1,488.00	\$1,458.24	\$736.56	\$3,682.8
		LLNL Electrical Engineer		ED&I	0	0.6 wks	\$0.00	\$0.00	\$0.00	\$1,488.00	\$0.00	\$0.00	\$0.00
4903	1.3.1.6.4.4	Calibration	LLNL	ED&I	2	1.5 wks	\$0.00	\$0.00	\$3,240.00	\$3,240.00	\$3,175.20	\$1,603.80	\$8,019.0
		LLNL Physicist -Scientist		ED&I	0	1.5 wks	\$0.00	\$0.00	\$0.00	\$3,240.00	\$0.00	\$0.00	\$0.00
4904	1.3.1.6.4.5	Production Units	LLNL		0	51.8 wks	\$0.00	\$726,000.00	\$110,256.00	\$836,256.00	\$245,264.88	\$216,875.22	\$1,298,396.10
4905	1.3.1.6.4.5	Chamber Venture Baffle	LLNL	M&S	2	0 wks	\$0.00	\$44,000.00	\$0.00	\$44,000.00	\$8,316.00	\$13,079.00	\$65,395.0
		LLNL M&S Total		M&S	0	44,000	\$0.00	\$0.00	\$0.00	\$44,000.00	\$0.00	\$0.00	\$0.00
4906	1.3.1.6.4.5	Chamber	LLNL	M&S	2	0 wks	\$0.00	\$80,000.00	\$0.00	\$80,000.00	\$15,120.00	\$23,780.00	\$118,900.0
		LLNL M&S Total		M&S	0	80,000	\$0.00	\$0.00	\$0.00	\$80,000.00	\$0.00	\$0.00	\$0.00
4907	1.3.1.6.4.5	Chamber Stand	LLNL	M&S	2	0 wks	\$0.00	\$10,000.00	\$0.00	\$10,000.00	\$1,890.00	\$2,972.50	\$14,862.5
		Status Statia					φσ.σσ	\$.0,000.00	φο.σσ	Ţ.0,000.00	\$1,555.00	\$2,072.50	ψ17,002.00

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ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		LLNL M&S Total		M&S	0	10,000	\$0.00	\$0.00	\$0.00	\$10,000.00	\$0.00	\$0.00	\$0.00
4908	1.3.1.6.4.5	System Controller Multiloop controller	LLNL	M&S	1	0 wks	\$0.00	\$30,000.00	\$0.00	\$30,000.00	\$5,670.00	\$5,350.50	\$41,020.50
		LLNL M&S Total		M&S	0	30,000	\$0.00	\$0.00	\$0.00	\$30,000.00	\$0.00	\$0.00	\$0.00
4909	1.3.1.6.4.5	Pressure, hardware Monitor "Sensors"	LLNL	M&S	1	0 wks	\$0.00	\$12,000.00	\$0.00	\$12,000.00	\$2,268.00	\$2,140.20	\$16,408.20
		LLNL M&S Total		M&S	0	12,000	\$0.00	\$0.00	\$0.00	\$12,000.00	\$0.00	\$0.00	\$0.00
4910	1.3.1.6.4.5	Pressure Baratron MKS Head	LLNL	M&S	1	0 wks	\$0.00	\$4,000.00	\$0.00	\$4,000.00	\$756.00	\$713.40	\$5,469.40
		LLNL M&S Total		M&S	0	4,000	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$0.00
4911	1.3.1.6.4.5	Pressure Controller Baratron MKS	LLNL	M&S	1	0 wks	\$0.00	\$9,000.00	\$0.00	\$9,000.00	\$1,701.00	\$1,605.15	\$12,306.15
		LLNL M&S Total		M&S	0	9,000	\$0.00	\$0.00	\$0.00	\$9,000.00	\$0.00	\$0.00	\$0.00
4912	1.3.1.6.4.5	Flow Controller 500 sccm HA MKS	LLNL	M&S	1	0 wks	\$0.00	\$6,000.00	\$0.00	\$6,000.00	\$1,134.00	\$1,070.10	\$8,204.10
		LLNL M&S Total		M&S	0	6,000	\$0.00	\$0.00	\$0.00	\$6,000.00	\$0.00	\$0.00	\$0.00
4913	1.3.1.6.4.5		LLNL	M&S	1	0 wks	\$0.00	\$4,000.00	\$0.00	\$4,000.00	\$756.00	\$713.40	\$5,469.40
.0.0	1.0.1.0.1.0	LLNL M&S Total		M&S	0	4,000	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$0.00
4914	1.3.1.6.4.5		LLNL	M&S	1	0 wks	\$0.00	\$11,000.00	\$0.00	\$11,000.00	\$2,079.00	\$1,961.85	\$15,040.85
4914	1.3.1.0.4.3		LLINE		'								
		LLNL M&S Total		M&S	0	11,000	\$0.00	\$0.00	\$0.00	\$11,000.00	\$0.00	\$0.00	\$0.00
4915	1.3.1.6.4.5		LLNL	M&S	2	0 wks	\$0.00	\$8,000.00	\$0.00	\$8,000.00	\$1,512.00	\$2,378.00	\$11,890.00
		LLNL M&S Total		M&S	0	8,000	\$0.00	\$0.00	\$0.00	\$8,000.00	\$0.00	\$0.00	\$0.00
4916	1.3.1.6.4.5	Interface-Mount to Chamber	LLNL	M&S	2	0 wks	\$0.00	\$10,000.00	\$0.00	\$10,000.00	\$1,890.00	\$2,972.50	\$14,862.50
		LLNL M&S Total		M&S	0	10,000	\$0.00	\$0.00	\$0.00	\$10,000.00	\$0.00	\$0.00	\$0.00
4917	1.3.1.6.4.5	Chamber feed through	LLNL	M&S	2	0 wks	\$0.00	\$4,000.00	\$0.00	\$4,000.00	\$756.00	\$1,189.00	\$5,945.00
		LLNL M&S Total		M&S	0	4,000	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$0.00
4918	1.3.1.6.4.5	lon gage and read out	LLNL	M&S	1	0 wks	\$0.00	\$8,000.00	\$0.00	\$8,000.00	\$1,512.00	\$1,426.80	\$10,938.80
		LLNL M&S Total		M&S	0	8,000	\$0.00	\$0.00	\$0.00	\$8,000.00	\$0.00	\$0.00	\$0.00
4919	1.3.1.6.4.5	Turbo Pump 521	LLNL	M&S	1	0 wks	\$0.00	\$64,000.00	\$0.00	\$64,000.00	\$12,096.00	\$11,414.40	\$87,510.40
		LLNL M&S Total		M&S	0	64,000	\$0.00	\$0.00	\$0.00	\$64,000.00	\$0.00	\$0.00	\$0.00
4920	1.3.1.6.4.5	Turbo Pump 2101	LLNL	M&S	1	0 wks	\$0.00	\$136,000.00	\$0.00	\$136,000.00	\$25,704.00	\$24,255.60	\$185,959.60
		LLNL M&S Total		M&S	0	136,000	\$0.00	\$0.00	\$0.00	\$136,000.00	\$0.00	\$0.00	\$0.00
4921	1.3.1.6.4.5		LLNL	M&S	1	0 wks	\$0.00	\$10,000.00	\$0.00	\$10,000.00	\$1,890.00	\$1,783.50	\$13,673.50
.02.	1.0.1.0.1.0	LLNL M&S Total		M&S	0	10,000	\$0.00	\$0.00	\$0.00	\$10,000.00	\$0.00	\$0.00	\$0.00
4922	1.3.1.6.4.5	. ,	LLNL	M&S	1	0 wks	\$0.00	\$7,000.00	\$0.00	\$7,000.00	\$1,323.00	\$1,248.45	\$9,571.45
		LLNL M&S Total		M&S	0	7,000	\$0.00	\$0.00	\$0.00	\$7,000.00	\$0.00	\$0.00	\$0.00
4923	1.3.1.6.4.5		LLNL	M&S	2	0 wks	\$0.00	\$6,000.00	\$0.00	\$6,000.00	\$1,134.00	\$1,783.50	\$8,917.50
		LLNL M&S Total		M&S	0	6,000	\$0.00	\$0.00	\$0.00	\$6,000.00	\$0.00	\$0.00	\$0.00
4924	1.3.1.6.4.5	Gate Valve Controller	LLNL	M&S	1	0 wks	\$0.00	\$12,000.00	\$0.00	\$12,000.00	\$2,268.00	\$2,140.20	\$16,408.20
		LLNL M&S Total		M&S	0	12,000	\$0.00	\$0.00	\$0.00	\$12,000.00	\$0.00	\$0.00	\$0.00

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ID		Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
925	1.3.1.6.4.5	Gate vales 8"	LLNL	M&S	1 1	0 wks	\$0.00	\$13,000.00	\$0.00	\$13,000.00	\$2,457.00	\$2,318.55	\$17,775.
		LLNL M&S Total		M&S	0	13,000	\$0.00	\$0.00	\$0.00	\$13,000.00	\$0.00	\$0.00	\$0.
26	1.3.1.6.4.5	Gate vales 4"	LLNL	M&S	1	0 wks	\$0.00	\$7,000.00	\$0.00	\$7,000.00	\$1,323.00	\$1,248.45	\$9,571
\dashv		LLNL M&S Total		M&S	0	7,000	\$0.00	\$0.00	\$0.00	\$7,000.00	\$0.00	\$0.00	\$0.
27	1.3.1.6.4.5	Dry pumps 35 cfm	LLNL	M&S	1	0 wks	\$0.00	\$107,000.00	\$0.00	\$107,000.00	\$20,223.00	\$19,083.45	\$146,306
		LLNL M&S Total		M&S	0	107,000	\$0.00	\$0.00	\$0.00	\$107,000.00	\$0.00	\$0.00	\$0
28	1.3.1.6.4.5	Plate holder	LLNL	M&S	2	0 wks	\$0.00	\$12,000.00	\$0.00	\$12,000.00	\$2,268.00	\$3,567.00	\$17,835
		LLNL M&S Total		M&S	0	12,000	\$0.00	\$0.00	\$0.00	\$12,000.00	\$0.00	\$0.00	\$0
29	1.3.1.6.4.5	Hardware Support Blower	LLNL	M&S	1	0 wks	\$0.00	\$10,000.00	\$0.00	\$10,000.00	\$1,890.00	\$1,783.50	\$13,673
		LLNL M&S Total		M&S	0	10,000	\$0.00	\$0.00	\$0.00	\$10,000.00	\$0.00	\$0.00	\$0
30	1.3.1.6.4.5	Mechanical Hardware	LLNL	M&S	2	0 wks	\$0.00	\$36,000.00	\$0.00	\$36,000.00	\$6,804.00	\$10,701.00	\$53,505
		LLNL M&S Total		M&S	0	36,000	\$0.00	\$0.00	\$0.00	\$36,000.00	\$0.00	\$0.00	\$0
31	1.3.1.6.4.5	Cathode	LLNL	M&S	2	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
\dashv		LLNL M&S Total		M&S	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
32	1.3.1.6.4.5	Anode	LLNL	M&S	2	0 wks	\$0.00	\$12,000.00	\$0.00	\$12,000.00	\$2,268.00	\$3,567.00	\$17,835
\dashv		LLNL M&S Total		M&S	0	12,000	\$0.00	\$0.00	\$0.00	\$12,000.00	\$0.00	\$0.00	\$0
33	1.3.1.6.4.5	Amp / Disc	LLNL	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$378.00	\$594.50	\$2,97
\dashv		LLNL M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0
34	1.3.1.6.4.5	ADC	LLNL	M&S	2	0 wks	\$0.00	\$24,000.00	\$0.00	\$24,000.00	\$4,536.00	\$7,134.00	\$35,670
		LLNL M&S Total		M&S	0	24,000	\$0.00	\$0.00	\$0.00	\$24,000.00	\$0.00	\$0.00	\$0
35	1.3.1.6.4.5	Computer I/F	LLNL	M&S	2	0 wks	\$0.00	\$14,000.00	\$0.00	\$14,000.00	\$2,646.00	\$4,161.50	\$20,80
		LLNL M&S Total		M&S	0	14,000	\$0.00	\$0.00	\$0.00	\$14,000.00	\$0.00	\$0.00	\$0
36	1.3.1.6.4.5	HV Supply	LLNL	M&S	2	0 wks	\$0.00	\$14,000.00	\$0.00	\$14,000.00	\$2,646.00	\$4,161.50	\$20,80
		LLNL M&S Total		M&S	0	14,000	\$0.00	\$0.00	\$0.00	\$14,000.00	\$0.00	\$0.00	\$0
37	1.3.1.6.4.5	Chamber	LLNL	B&H	2	0.4 wks	\$0.00	\$0.00	\$912.00	\$912.00	\$893.76	\$451.44	\$2,25
_		LLNL Mech. Fab: Machine Shop		B&H	0	0.4 wks	\$0.00	\$0.00	\$0.00	\$912.00	\$0.00	\$0.00	\$(
38	1.3.1.6.4.5	·	LLNL	B&H	2	4 wks	\$0.00	\$0.00	\$9,120.00	\$9,120.00	\$8,937.60	\$4,514.40	\$22,572
		LLNL Mech. Fab: Machine Shop		B&H	0	4 wks	\$0.00	\$0.00	\$0.00	\$9,120.00	\$0.00	\$0.00	\$22,07
39	1.3.1.6.4.5	, '	LLNL	B&H	2	1.2 wks	\$0.00	\$0.00	\$2,736.00	\$2,736.00	\$2,681.28	\$1,354.32	\$6,77
	1.0.1.0.4.0	LLNL Mech. Fab: Machine Shop	LEIVE	B&H		1.2 wks	\$0.00	\$0.00	\$0.00	\$2,736.00	\$0.00	\$0.00	\$0,77
		, '			0							.	
40	1.3.1.6.4.5	•	LLNL	B&H	2	4 wks	\$0.00	\$0.00	\$8,320.00	\$8,320.00	\$8,153.60	\$4,118.40	\$20,59
	101015	LLNL Mech. Fab: Assembly Tech		B&H	0	4 wks	\$0.00	\$0.00	\$0.00	\$8,320.00	\$0.00	\$0.00	\$0
41	1.3.1.6.4.5	, , , , , , , , , , , , , , , , , , , ,	LLNL	B&H	2	6 wks	\$0.00	\$0.00	\$12,480.00	\$12,480.00	\$12,230.40	\$6,177.60	\$30,88
		LLNL Mech. Fab: Assembly Tech		B&H	0	6 wks	\$0.00	\$0.00	\$0.00	\$12,480.00	\$0.00	\$0.00	\$0
42	1.3.1.6.4.5	Dry Pumps Labor and Assembly	LLNL	B&H	2	3 wks	\$0.00	\$0.00	\$6,240.00	\$6,240.00	\$6,115.20	\$3,088.80	\$15,444

ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		LLNL Mech. Fab: Assembly Tech		B&H	0	3 wks	\$0.00	\$0.00	\$0.00	\$6,240.00	\$0.00	\$0.00	\$0.0
943	1.3.1.6.4.5	Chamber Labor and Assembly	LLNL	B&H	2	8 wks	\$0.00	\$0.00	\$16,640.00	\$16,640.00	\$16,307.20	\$8,236.80	\$41,184.0
		LLNL Mech. Fab: Assembly Tech		B&H	0	8 wks	\$0.00	\$0.00	\$0.00	\$16,640.00	\$0.00	\$0.00	\$0.0
944	1.3.1.6.4.5	Venture and Orifice Labor and Assembly	LLNL	B&H	2	4 wks	\$0.00	\$0.00	\$8,320.00	\$8,320.00	\$8,153.60	\$4,118.40	\$20,592.0
		LLNL Mech. Fab: Assembly Tech		B&H	0	4 wks	\$0.00	\$0.00	\$0.00	\$8,320.00	\$0.00	\$0.00	\$0.0
945	1.3.1.6.4.5	Hardware Blower Labor and Assembly	LLNL	B&H	2	4 wks	\$0.00	\$0.00	\$8,320.00	\$8,320.00	\$8,153.60	\$4,118.40	\$20,592.0
		LLNL Mech. Fab: Assembly Tech		B&H	0	4 wks	\$0.00	\$0.00	\$0.00	\$8,320.00	\$0.00	\$0.00	\$0.0
946	1.3.1.6.4.5	Mechanical Hardware Labor and Assembly	LLNL	B&H	2	8 wks	\$0.00	\$0.00	\$16,640.00	\$16,640.00	\$16,307.20	\$8,236.80	\$41,184.0
		LLNL Mech. Fab: Assembly Tech		B&H	0	8 wks	\$0.00	\$0.00	\$0.00	\$16,640.00	\$0.00	\$0.00	\$0.0
947	1.3.1.6.4.5	Focal plane electrical assembly	LLNL	B&H	2	4 wks	\$0.00	\$0.00	\$8,320.00	\$8,320.00	\$8,153.60	\$4,118.40	\$20,592.0
		LLNL PCD:Inst-Cabling-Elec Fab		B&H	0	4 wks	\$0.00	\$0.00	\$0.00	\$8,320.00	\$0.00	\$0.00	\$0.0
948	1.3.1.6.4.5	Software Load	LLNL	ED&I	2	0.4 wks	\$0.00	\$0.00	\$864.00	\$864.00	\$846.72	\$427.68	\$2,138.
		LLNL Physicist -Scientist		ED&I	0	0.4 wks	\$0.00	\$0.00	\$0.00	\$864.00	\$0.00	\$0.00	\$0.
949	1.3.1.6.4.5	Mechanical Acceptance Test	LLNL	ED&I	2	2 wks	\$0.00	\$0.00	\$5,040.00	\$5,040.00	\$4,939.20	\$2,494.80	\$12,474.
		LLNL Mechanical Engineer		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$5,040.00	\$0.00	\$0.00	\$0.
950	1.3.1.6.4.5	Electrical Acceptance Test	LLNL	ED&I	2	0.8 wks	\$0.00	\$0.00	\$1,984.00	\$1,984.00	\$1,944.32	\$982.08	\$4,910.
		LLNL Electrical Engineer		ED&I	0	0.8 wks	\$0.00	\$0.00	\$0.00	\$1,984.00	\$0.00	\$0.00	\$0.
951	1.3.1.6.4.5	Calibration	LLNL	ED&I	2	2 wks	\$0.00	\$0.00	\$4,320.00	\$4,320.00	\$4,233.60	\$2,138.40	\$10,692.
		LLNL Physicist -Scientist		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,320.00	\$0.00	\$0.00	\$0.0
952	1.3.1.6.5	Gas Mixing System			0	30.2 wks	\$0.00	\$150,000.00	\$66,016.00	\$216,016.00	\$93,045.68	\$77,265.42	\$386,327.
953	1.3.1.6.5.1	Safety Note	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
954	1.3.1.6.5.2	FDR	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
955	1.3.1.6.5.3	Procurement	LLNL		0	0 wks	\$0.00	\$150,000.00	\$0.00	\$150,000.00	\$28,350.00	\$44,587.50	\$222,937.
956	1.3.1.6.5.3	System Controller	LLNL	M&S	2	0 wks	\$0.00	\$9,000.00	\$0.00	\$9,000.00	\$1,701.00	\$2,675.25	\$13,376.
		LLNL M&S Total		M&S	0	9,000	\$0.00	\$0.00	\$0.00	\$9,000.00	\$0.00	\$0.00	\$0.
957	1.3.1.6.5.3	System Controller Panel	LLNL	M&S	2	0 wks	\$0.00	\$5,000.00	\$0.00	\$5,000.00	\$945.00	\$1,486.25	\$7,431.
		LLNL M&S Total		M&S	0	5,000	\$0.00	\$0.00	\$0.00	\$5,000.00	\$0.00	\$0.00	\$0.
958	1.3.1.6.5.3	Pressure Baratron MKS Head 750B	LLNL	M&S	2	0 wks	\$0.00	\$8,000.00	\$0.00	\$8,000.00	\$1,512.00	\$2,378.00	\$11,890.
		LLNL M&S Total		M&S	0	8,000	\$0.00	\$0.00	\$0.00	\$8,000.00	\$0.00	\$0.00	\$0.
959	1.3.1.6.5.3	Pressure Controller Baratron MKS 146	LLNL	M&S	2	0 wks	\$0.00	\$9,000.00	\$0.00	\$9,000.00	\$1,701.00	\$2,675.25	\$13,376.
		LLNL M&S Total		M&S	0	9,000	\$0.00	\$0.00	\$0.00	\$9,000.00	\$0.00	\$0.00	\$0.
960	1.3.1.6.5.3	Flow Controller 5000 sccm 2179	LLNL	M&S	2	0 wks	\$0.00	\$8,000.00	\$0.00	\$8,000.00	\$1,512.00	\$2,378.00	\$11,890.
		LLNL M&S Total		M&S	0	8,000	\$0.00	\$0.00	\$0.00	\$8,000.00	\$0.00	\$0.00	\$0.
961	1.3.1.6.5.3	Flow Meter 5000 sccm 179	LLNL	M&S	2	0 wks	\$0.00	\$5,000.00	\$0.00	\$5,000.00	\$945.00	\$1,486.25	\$7,431.
		LLNL M&S Total		M&S	0	5,000	\$0.00	\$0.00	\$0.00	\$5,000.00	\$0.00	\$0.00	\$0.0

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ID		Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
962	1.3.1.6.5.3	Flow Controller Driver 246	LLNL	M&S	2	0 wks	\$0.00	\$5,000.00	\$0.00	\$5,000.00	\$945.00	\$1,486.25	\$7,431.
		LLNL M&S Total		M&S	0	5,000	\$0.00	\$0.00	\$0.00	\$5,000.00	\$0.00	\$0.00	\$0.0
963	1.3.1.6.5.3	Flow and Pressure Read Out Driver 660	LLNL	M&S	2	0 wks	\$0.00	\$8,000.00	\$0.00	\$8,000.00	\$1,512.00	\$2,378.00	\$11,890.
		LLNL M&S Total		M&S	0	8,000	\$0.00	\$0.00	\$0.00	\$8,000.00	\$0.00	\$0.00	\$0.
964	1.3.1.6.5.3	Driver Card Bay Pneumatic	LLNL	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$378.00	\$594.50	\$2,972
\dashv		LLNL M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.
965	1.3.1.6.5.3	Cables	LLNL	M&S	2	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$567.00	\$891.75	\$4,458
\dashv		LLNL M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0
966	1.3.1.6.5.3	Racks and Chases	LLNL	M&S	2	0 wks	\$0.00	\$5,000.00	\$0.00	\$5,000.00	\$945.00	\$1,486.25	\$7,431
\dashv		LLNL M&S Total		M&S	0	5,000	\$0.00	\$0.00	\$0.00	\$5,000.00	\$0.00	\$0.00	\$0.
967	1.3.1.6.5.3	Regulator Manifold and Bottle Bank	LLNL	M&S	2	0 wks	\$0.00	\$17,000.00	\$0.00	\$17,000.00	\$3,213.00	\$5,053.25	\$25,266
\dashv		LLNL M&S Total		M&S	0	17,000	\$0.00	\$0.00	\$0.00	\$17,000.00	\$0.00	\$0.00	\$0.
968	1.3.1.6.5.3	Platform for bottle rack	LLNL	M&S	2	0 wks	\$0.00	\$4,000.00	\$0.00	\$4,000.00	\$756.00	\$1,189.00	\$5,945
\dashv		LLNL M&S Total		M&S	0	4,000	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$0
969	1.3.1.6.5.3	Bottle Heater and Scale	LLNL	M&S	2	0 wks	\$0.00	\$8,000.00	\$0.00	\$8,000.00	\$1,512.00	\$2,378.00	\$11,890
\dashv		LLNL M&S Total		M&S	0	8,000	\$0.00	\$0.00	\$0.00	\$8,000.00	\$0.00	\$0.00	\$0
70	1.3.1.6.5.3	Transfer and Regulator and Flow Control Manifold	LLNL	M&S	2	0 wks	\$0.00	\$10,000.00	\$0.00	\$10,000.00	\$1,890.00	\$2,972.50	\$14,862
\dashv		LLNL M&S Total		M&S	0	10,000	\$0.00	\$0.00	\$0.00	\$10,000.00	\$0.00	\$0.00	\$0
971	1.3.1.6.5.3	Manchester Tanks	LLNL	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$189.00	\$297.25	\$1,486
\dashv		LLNL M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0
972	1.3.1.6.5.3	Platform for mixer	LLNL	M&S	2	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$567.00	\$891.75	\$4,458
\dashv		LLNL M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0
973	1.3.1.6.5.3	Hardware	LLNL	M&S	2	0 wks	\$0.00	\$18,000.00	\$0.00	\$18,000.00	\$3,402.00	\$5,350.50	\$26,752
\dashv		LLNL M&S Total		M&S	0	18,000	\$0.00	\$0.00	\$0.00	\$18,000.00	\$0.00	\$0.00	\$0
974	1.3.1.6.5.3	Hardware Support Blower	LLNL	M&S	2	0 wks	\$0.00	\$5,000.00	\$0.00	\$5,000.00	\$945.00	\$1,486.25	\$7,431
\dashv		LLNL M&S Total		M&S	0	5,000	\$0.00	\$0.00	\$0.00	\$5,000.00	\$0.00	\$0.00	\$0
975	1.3.1.6.5.3	EPICS IF	LLNL	M&S	2	0 wks	\$0.00	\$17,000.00	\$0.00	\$17,000.00	\$3,213.00	\$5,053.25	\$25,266
\dashv		LLNL M&S Total		M&S	0	17,000	\$0.00	\$0.00	\$0.00	\$17,000.00	\$0.00	\$0.00	\$0
976	1.3.1.6.5.4	Assembly and Test	LLNL		0	28 wks	\$0.00	\$0.00	\$60,480.00	\$60,480.00	\$59,270.40	\$29,937.60	\$149,688
977	1.3.1.6.5.4	System Controller Computer Labor	LLNL	B&H	2	2 wks	\$0.00	\$0.00	\$4,240.00	\$4,240.00	\$4,155.20	\$2,098.80	\$10,494
_		LLNL Controls: Technician		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,240.00	\$0.00	\$0.00	\$0
78	1.3.1.6.5.4	System Controller Computer Programming and interface	LLNL	ED&I	2	4 wks	\$0.00	\$0.00	\$8,640.00	\$8,640.00	\$8,467.20	\$4,276.80	\$21,384
\dashv		LLNL Physicist -Scientist		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$8,640.00	\$0.00	\$0.00	\$0
979	1.3.1.6.5.4	System Controller Assembly	LLNL	B&H	2	2 wks	\$0.00	\$0.00	\$4,240.00	\$4,240.00	\$4,155.20	\$2,098.80	\$10,494
		LLNL Controls: Technician		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,240.00	\$0.00	\$0.00	\$0

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ID		Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
1980	1.3.1.6.5.4	System Controller Panel Assembly	LLNL	B&H	2	2 wks	\$0.00	\$0.00	\$4,160.00	\$4,160.00	\$4,076.80	\$2,059.20	\$10,296.0
		LLNL PCD:Inst-Cabling-Elec Fab		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,160.00	\$0.00	\$0.00	\$0.0
981	1.3.1.6.5.4	EE Wireing	LLNL	B&H	2	2 wks	\$0.00	\$0.00	\$4,160.00	\$4,160.00	\$4,076.80	\$2,059.20	\$10,296.0
		LLNL PCD:Inst-Cabling-Elec Fab		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,160.00	\$0.00	\$0.00	\$0.0
982	1.3.1.6.5.4	Labor and Assembly Bottle Manifold	LLNL	B&H	2	4 wks	\$0.00	\$0.00	\$8,320.00	\$8,320.00	\$8,153.60	\$4,118.40	\$20,592.0
		LLNL Mech. Fab: Assembly Tech		B&H	0	4 wks	\$0.00	\$0.00	\$0.00	\$8,320.00	\$0.00	\$0.00	\$0.0
983	1.3.1.6.5.4	Labor and Assembly Transfer Manifold	LLNL	B&H	2	4 wks	\$0.00	\$0.00	\$8,320.00	\$8,320.00	\$8,153.60	\$4,118.40	\$20,592.0
		LLNL Mech. Fab: Assembly Tech		B&H	0	4 wks	\$0.00	\$0.00	\$0.00	\$8,320.00	\$0.00	\$0.00	\$0.0
984	1.3.1.6.5.4	Labor and Assembly Hardware	LLNL	B&H	2	3 wks	\$0.00	\$0.00	\$6,240.00	\$6,240.00	\$6,115.20	\$3,088.80	\$15,444.
		LLNL Mech. Fab: Assembly Tech		B&H	0	3 wks	\$0.00	\$0.00	\$0.00	\$6,240.00	\$0.00	\$0.00	\$0.0
985	101051	·	LLNL	B&H			\$0.00	\$0.00	\$2,080.00	\$2,080.00	\$2,038.40	\$1,029.60	\$5,148.0
985	1.3.1.6.5.4	Labor and Assembly Hardware Blower	LLNL		2	1 wk							
		LLNL Mech. Fab: Assembly Tech		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,080.00	\$0.00	\$0.00	\$0.0
986	1.3.1.6.5.4	System Pressure Qualifing	LLNL	ED&I	2	4 wks	\$0.00	\$0.00	\$10,080.00	\$10,080.00	\$9,878.40	\$4,989.60	\$24,948.
		LLNL AD: Mech/Vacuum Engineer		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$10,080.00	\$0.00	\$0.00	\$0.0
987	1.3.1.6.5.5	Install and Test	LLNL		0	2.2 wks	\$0.00	\$0.00	\$5,536.00	\$5,536.00	\$5,425.28	\$2,740.32	\$13,701.6
988	1.3.1.6.5.5	Shipping	LLNL	B&H	2	0.2 wks	\$0.00	\$0.00	\$496.00	\$496.00	\$486.08	\$245.52	\$1,227.
		LLNL T&M Crafts - Union Equip. Op.		B&H	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$496.00	\$0.00	\$0.00	\$0.
989	1.3.1.6.5.5	Install	LLNL	B&H	2	1 wk	\$0.00	\$0.00	\$2,520.00	\$2,520.00	\$2,469.60	\$1,247.40	\$6,237.
		LLNL T&M Crafts - Union Pipefitter		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,520.00	\$0.00	\$0.00	\$0.
990	1.3.1.6.5.5	Final Acceptance Test	LLNL	ED&I	2	1 wk	\$0.00	\$0.00	\$2,520.00	\$2,520.00	\$2,469.60	\$1,247.40	\$6,237.
		LLNL AD: Mech/Vacuum Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,520.00	\$0.00	\$0.00	\$0.
991	1.3.1.6.6	Tank FEE 1			0	15.4 wks	\$0.00	\$264.000.00	\$33.672.00	\$297.672.00	\$82.894.56	\$95.141.64	\$475,708.
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992	1.3.1.6.6.1	PDR	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
993	1.3.1.6.6.2	FDR	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
994	1.3.1.6.6.3	Procurement	LLNL		0	0 wks	\$0.00	\$264,000.00	\$0.00	\$264,000.00	\$49,896.00	\$78,474.00	\$392,370.
995	1.3.1.6.6.3	Tank with 3 doors and lid	LLNL	M&S	2	0 wks	\$0.00	\$50,000.00	\$0.00	\$50,000.00	\$9,450.00	\$14,862.50	\$74,312.
		LLNL M&S Total		M&S	0	50,000	\$0.00	\$0.00	\$0.00	\$50,000.00	\$0.00	\$0.00	\$0.
996	1.3.1.6.6.3	Turbo System -2101	LLNL	M&S	2	0 wks	\$0.00	\$35,000.00	\$0.00	\$35,000.00	\$6,615.00	\$10,403.75	\$52,018.
		LLNL M&S Total		M&S	0	35,000	\$0.00	\$0.00	\$0.00	\$35,000.00	\$0.00	\$0.00	\$0.
997	1.3.1.6.6.3	Scroll Dry Pump	LLNL	M&S	2	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$567.00	\$891.75	\$4,458.
		LLNL M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0.
998	1.3.1.6.6.3	ELINE WIRES FORM	LLNL	M&S		0 wks	\$0.00	\$13,000.00	\$0.00	\$13,000.00	\$2,457.00	\$3,864.25	\$19,321
ಶಚರ	1.3.1.5.5.3		LLINL		2								
		LLNL M&S Total		M&S	0	13,000	\$0.00	\$0.00	\$0.00	\$13,000.00	\$0.00	\$0.00	\$0.
999	1.3.1.6.6.3	Pressure Baratron MKS Head 750B	LLNL	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$189.00	\$297.25	\$1,486.
		LLNL M&S Total	1	M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.0

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ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
000	1.3.1.6.6.3	Pressure Controller Baratron MKS	LLNL	M&S	2 Risk	Units 0 wks	\$0.00	\$5,000.00	Labor (Direct) \$0.00	\$5,000.00	\$945.00	\$1,486.25	\$7,431.
\dashv		LLNL M&S Total		M&S	0	5,000	\$0.00	\$0.00	\$0.00	\$5,000.00	\$0.00	\$0.00	\$0.0
001	1.3.1.6.6.3	Gate Valve MDC 8"	LLNL	M&S	2	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$567.00	\$891.75	\$4,458.
\dashv		LLNL M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0.
002	1.3.1.6.6.3	lon Guage (2)	LLNL	M&S	2	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$567.00	\$891.75	\$4,458
\dashv		LLNL M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0.
003	1.3.1.6.6.3	Key vacuum map ADP-3500	LLNL	M&S	2	0 wks	\$0.00	\$4,000.00	\$0.00	\$4,000.00	\$756.00	\$1,189.00	\$5,945
		LLNL M&S Total		M&S	0	4,000	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$0
04	1.3.1.6.6.3	Optical rails (6m@0.5)	LLNL	M&S	2	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$567.00	\$891.75	\$4,458
\dashv		LLNL M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0
05	1.3.1.6.6.3	DI Imager insertion stage	LLNL	M&S	2	0 wks	\$0.00	\$20,000.00	\$0.00	\$20,000.00	\$3,780.00	\$5,945.00	\$29,725
		LLNL M&S Total		M&S	0	20,000	\$0.00	\$0.00	\$0.00	\$20,000.00	\$0.00	\$0.00	\$0
06	1.3.1.6.6.3	SF Imager insertion stage	LLNL	M&S	2	0 wks	\$0.00	\$20,000.00	\$0.00	\$20,000.00	\$3,780.00	\$5,945.00	\$29,725
		LLNL M&S Total		M&S	0	20,000	\$0.00	\$0.00	\$0.00	\$20,000.00	\$0.00	\$0.00	\$0
07	1.3.1.6.6.3	Spare insertion stage	LLNL	M&S	2	0 wks	\$0.00	\$20,000.00	\$0.00	\$20,000.00	\$3,780.00	\$5,945.00	\$29,725
		LLNL M&S Total		M&S	0	20,000	\$0.00	\$0.00	\$0.00	\$20,000.00	\$0.00	\$0.00	\$0
80	1.3.1.6.6.3	Plates	LLNL	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$189.00	\$297.25	\$1,48
		LLNL M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0
09	1.3.1.6.6.3	Feedthroughs 21*0.3	LLNL	M&S	2	0 wks	\$0.00	\$6,000.00	\$0.00	\$6,000.00	\$1,134.00	\$1,783.50	\$8,91
		LLNL M&S Total		M&S	0	6,000	\$0.00	\$0.00	\$0.00	\$6,000.00	\$0.00	\$0.00	\$6
10	1.3.1.6.6.3	Cables	LLNL	M&S	2	0 wks	\$0.00	\$5,000.00	\$0.00	\$5,000.00	\$945.00	\$1,486.25	\$7,43
		LLNL M&S Total		M&S	0	5,000	\$0.00	\$0.00	\$0.00	\$5,000.00	\$0.00	\$0.00	\$0
11	1.3.1.6.6.3	Racks and Chases	LLNL	M&S	2	0 wks	\$0.00	\$8,000.00	\$0.00	\$8,000.00	\$1,512.00	\$2,378.00	\$11,89
		LLNL M&S Total		M&S	0	8,000	\$0.00	\$0.00	\$0.00	\$8,000.00	\$0.00	\$0.00	\$0
12	1.3.1.6.6.3	Stand	LLNL	M&S	2	0 wks	\$0.00	\$17,000.00	\$0.00	\$17,000.00	\$3,213.00	\$5,053.25	\$25,26
		LLNL M&S Total		M&S	0	17,000	\$0.00	\$0.00	\$0.00	\$17,000.00	\$0.00	\$0.00	\$0
13	1.3.1.6.6.3	Motor Driver	LLNL	M&S	2	0 wks	\$0.00	\$15,000.00	\$0.00	\$15,000.00	\$2,835.00	\$4,458.75	\$22,29
		LLNL M&S Total		M&S	0	15,000	\$0.00	\$0.00	\$0.00	\$15,000.00	\$0.00	\$0.00	\$0
14	1.3.1.6.6.3	Motor PCI card	LLNL	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$189.00	\$297.25	\$1,48
		LLNL M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$
15	1.3.1.6.6.3	Computer	LLNL	M&S	2	0 wks	\$0.00	\$10,000.00	\$0.00	\$10,000.00	\$1,890.00	\$2,972.50	\$14,86
		LLNL M&S Total		M&S	0	10,000	\$0.00	\$0.00	\$0.00	\$10,000.00	\$0.00	\$0.00	\$0
16	1.3.1.6.6.3	Monitor	LLNL	M&S	2	0 wks	\$0.00	\$4,000.00	\$0.00	\$4,000.00	\$756.00	\$1,189.00	\$5,94
		LLNL M&S Total		M&S	0	4,000	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$0
)17	1.3.1.6.6.3	EPICS IF	LLNL	M&S	2	0 wks	\$0.00	\$17,000.00	\$0.00	\$17,000.00	\$3,213.00	\$5,053.25	\$25,266

ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		LLNL M&S Total		M&S	0	17,000	\$0.00	\$0.00	\$0.00	\$17,000.00	\$0.00	\$0.00	\$0.0
018	1.3.1.6.6.4	Assembly and Test	LLNL		0	13 wks	\$0.00	\$0.00	\$27,640.00	\$27,640.00	\$27,087.20	\$13,681.80	\$68,409.0
019	1.3.1.6.6.4	Assemble vaccum system	LLNL	B&H	2	6 wks	\$0.00	\$0.00	\$12,480.00	\$12,480.00	\$12,230.40	\$6,177.60	\$30,888.0
		LLNL Mech. Fab: Assembly Tech		B&H	0	6 wks	\$0.00	\$0.00	\$0.00	\$12,480.00	\$0.00	\$0.00	\$0.0
5020	1.3.1.6.6.4	Computer Programming and interface	LLNL	ED&I	2	2 wks	\$0.00	\$0.00	\$4,320.00	\$4,320.00	\$4,233.60	\$2,138.40	\$10,692.0
		LLNL Physicist -Scientist		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,320.00	\$0.00	\$0.00	\$0.0
021	1.3.1.6.6.4	Assemble Stand	LLNL	B&H	2	2 wks	\$0.00	\$0.00	\$4,160.00	\$4,160.00	\$4,076.80	\$2,059.20	\$10,296.0
		LLNL Mech. Fab: Assembly Tech		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,160.00	\$0.00	\$0.00	\$0.0
022	1.3.1.6.6.4	EE Wireing	LLNL	B&H	2	2 wks	\$0.00	\$0.00	\$4,160.00	\$4,160.00	\$4,076.80	\$2,059.20	\$10,296.0
		LLNL PCD:Inst-Cabling-Elec Fab		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,160.00	\$0.00	\$0.00	\$0.0
5023	1.3.1.6.6.4	System Vacuum test	LLNL	ED&I	2	1 wk	\$0.00	\$0.00	\$2,520.00	\$2,520.00	\$2,469.60	\$1,247.40	\$6,237.0
		LLNL AD: Mech/Vacuum Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,520.00	\$0.00	\$0.00	\$0.0
024	1.3.1.6.6.5	Install and Test	LLNL		0	2.4 wks	\$0.00	\$0.00	\$6,032.00	\$6,032.00	\$5,911.36	\$2,985.84	\$14,929.2
025	1.3.1.6.6.5	Shipping	LLNL	B&H	2	0.4 wks	\$0.00	\$0.00	\$992.00	\$992.00	\$972.16	\$491.04	\$2,455.2
		LLNL T&M Crafts - Union Equip. Op.		B&H	0	0.4 wks	\$0.00	\$0.00	\$0.00	\$992.00	\$0.00	\$0.00	\$0.0
026	1.3.1.6.6.5	Install	LLNL	B&H	2	1 wk	\$0.00	\$0.00	\$2,520.00	\$2,520.00	\$2,469.60	\$1,247.40	\$6,237.0
		LLNL T&M Crafts - Union Pipefitter		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,520.00	\$0.00	\$0.00	\$0.0
5027	1.3.1.6.6.5	Final Acceptance Test	LLNL	ED&I	2	1 wk	\$0.00	\$0.00	\$2,520.00	\$2,520.00	\$2,469.60	\$1,247.40	\$6,237.0
		LLNL AD: Mech/Vacuum Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,520.00	\$0.00	\$0.00	\$0.0
5028	1.3.1.6.7	lon Pumped Diagnostic Tanks			0	29.8 wks	\$0.00	\$314,000.00	\$65,464.00	\$379,464.00	\$123,500.72	\$119,769.50	\$622,734.2
5029	1.3.1.6.7.1	PDR	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
5030	1.3.1.6.7.2	FDR	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
5031	1.3.1.6.7.3	Procurement	LLNL		0	0 wks	\$0.00	\$314,000.00	\$0.00	\$314,000.00	\$59,346.00	\$93,336.50	\$466,682.5
5032	1.3.1.6.7.3	Tank with lid	LLNL	M&S	2	0 wks	\$0.00	\$60,000.00	\$0.00	\$60,000.00	\$11,340.00	\$17,835.00	\$89,175.0
		LLNL M&S Total		M&S	0	60,000	\$0.00	\$0.00	\$0.00	\$60,000.00	\$0.00	\$0.00	\$0.0
5033	1.3.1.6.7.3	lon Pump	LLNL	M&S	2	0 wks	\$0.00	\$22,000.00	\$0.00	\$22,000.00	\$4,158.00	\$6,539.50	\$32,697.5
		LLNL M&S Total		M&S	0	22,000	\$0.00	\$0.00	\$0.00	\$22,000.00	\$0.00	\$0.00	\$0.0
5034	1.3.1.6.7.3	lon pump power supply	LLNL	M&S	2	0 wks	\$0.00	\$10,000.00	\$0.00	\$10,000.00	\$1,890.00	\$2,972.50	\$14,862.5
		LLNL M&S Total		M&S	0	10,000	\$0.00	\$0.00	\$0.00	\$10,000.00	\$0.00	\$0.00	\$0.0
5035	1.3.1.6.7.3	lon Guage (2)	LLNL	M&S	2	0 wks	\$0.00	\$7,000.00	\$0.00	\$7,000.00	\$1,323.00	\$2,080.75	\$10,403.
		LLNL M&S Total		M&S	0	7,000	\$0.00	\$0.00	\$0.00	\$7,000.00	\$0.00	\$0.00	\$0.0
5036	1.3.1.6.7.3	Convectron guage	LLNL	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$378.00	\$594.50	\$2,972.
		LLNL M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.0
5037	1.3.1.6.7.3	Optical rails (2m@0.5)	LLNL	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$378.00	\$594.50	\$2,972.
		LLNL M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.0

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ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
5038	1.3.1.6.7.3		LLNL	M&S	2	0 wks	\$0.00	\$40,000.00	\$0.00	\$40,000.00	\$7,560.00	\$11,890.00	\$59,450.0
		LLNL M&S Total		M&S	0	40,000	\$0.00	\$0.00	\$0.00	\$40,000.00	\$0.00	\$0.00	\$0.0
039	1.3.1.6.7.3	DI Base plate	LLNL	M&S	2	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
-		LLNL M&S Total		M&S	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
040	1.3.1.6.7.3	Scatter Imager insertion stage	LLNL	M&S	2	0 wks	\$0.00	\$40,000.00	\$0.00	\$40,000.00	\$7,560.00	\$11,890.00	\$59,450.0
		LLNL M&S Total		M&S	0	40,000	\$0.00	\$0.00	\$0.00	\$40,000.00	\$0.00	\$0.00	\$0.0
041	1.3.1.6.7.3	Scatter Imager Base plate	LLNL	M&S	2	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
\dashv		LLNL M&S Total		M&S	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
042	1.3.1.6.7.3	Stage Feedthroughs 8*0.3	LLNL	M&S	2	0 wks	\$0.00	\$5,000.00	\$0.00	\$5,000.00	\$945.00	\$1,486.25	\$7,431.2
-		LLNL M&S Total		M&S	0	5,000	\$0.00	\$0.00	\$0.00	\$5,000.00	\$0.00	\$0.00	\$0.0
043	1.3.1.6.7.3	Camera Feedthroughs 2*0.3	LLNL	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$189.00	\$297.25	\$1,486.2
		LLNL M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.0
044	1.3.1.6.7.3	Racks and Chases	LLNL	M&S	2	0 wks	\$0.00	\$15,000.00	\$0.00	\$15,000.00	\$2,835.00	\$4,458.75	\$22,293.7
\dashv		LLNL M&S Total		M&S	0	15,000	\$0.00	\$0.00	\$0.00	\$15,000.00	\$0.00	\$0.00	\$0.0
045	1.3.1.6.7.3	Stand	LLNL	M&S	2	0 wks	\$0.00	\$20,000.00	\$0.00	\$20,000.00	\$3,780.00	\$5,945.00	\$29,725.0
		LLNL M&S Total		M&S	0	20,000	\$0.00	\$0.00	\$0.00	\$20,000.00	\$0.00	\$0.00	\$0.0
046	1.3.1.6.7.3	Motor Driver	LLNL	M&S	2	0 wks	\$0.00	\$26,000.00	\$0.00	\$26,000.00	\$4,914.00	\$7,728.50	\$38,642.5
		LLNL M&S Total		M&S	0	26,000	\$0.00	\$0.00	\$0.00	\$26,000.00	\$0.00	\$0.00	\$0.0
047	1.3.1.6.7.3	Motor PCI card	LLNL	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$378.00	\$594.50	\$2,972.5
		LLNL M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.0
048	1.3.1.6.7.3	Computer	LLNL	M&S	2	0 wks	\$0.00	\$20,000.00	\$0.00	\$20,000.00	\$3,780.00	\$5,945.00	\$29,725.0
\dashv		LLNL M&S Total		M&S	0	20,000	\$0.00	\$0.00	\$0.00	\$20,000.00	\$0.00	\$0.00	\$0.0
049	1.3.1.6.7.3	Monitor	LLNL	M&S	2	0 wks	\$0.00	\$8,000.00	\$0.00	\$8,000.00	\$1,512.00	\$2,378.00	\$11,890.0
		LLNL M&S Total		M&S	0	8,000	\$0.00	\$0.00	\$0.00	\$8,000.00	\$0.00	\$0.00	\$0.0
050	1.3.1.6.7.3	EPICS IF	LLNL	M&S	2	0 wks	\$0.00	\$34,000.00	\$0.00	\$34,000.00	\$6,426.00	\$10,106.50	\$50,532.5
\dashv		LLNL M&S Total		M&S	0	34,000	\$0.00	\$0.00	\$0.00	\$34,000.00	\$0.00	\$0.00	\$0.0
051	1.3.1.6.7.4	Machined parts	LLNL		0	1 wk	\$0.00	\$0.00	\$2,280.00	\$2,280.00	\$2,234.40	\$1,128.60	\$5,643.0
052	1.3.1.6.7.4	Base Plate	LLNL	B&H	2	0.2 wks	\$0.00	\$0.00	\$456.00	\$456.00	\$446.88	\$225.72	\$1,128.6
-		LLNL Mech. Fab: Machine Shop		B&H	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$456.00	\$0.00	\$0.00	\$0.0
053	1.3.1.6.7.4	DI Base Plate	LLNL	B&H	2	0.4 wks	\$0.00	\$0.00	\$912.00	\$912.00	\$893.76	\$451.44	\$2,257.2
-		LLNL Mech. Fab: Machine Shop		B&H	0	0.4 wks	\$0.00	\$0.00	\$0.00	\$912.00	\$0.00	\$0.00	\$0.0
054	1.3.1.6.7.4	SF Base Plate	LLNL	B&H	2	0.4 wks	\$0.00	\$0.00	\$912.00	\$912.00	\$893.76	\$451.44	\$2,257.2
		LLNL Mech. Fab: Machine Shop		B&H	0	0.4 wks	\$0.00	\$0.00	\$0.00	\$912.00	\$0.00	\$0.00	\$0.0
055	1.3.1.6.7.5	Assembly and Test	LLNL		0	24 wks	\$0.00	\$0.00	\$51,120.00	\$51,120.00	\$50,097.60	\$25,304.40	\$126,522.0
056	1.3.1.6.7.5	Assemble vaccum system	LLNL	B&H	2	10 wks	\$0.00	\$0.00	\$20,800.00	\$20,800.00	\$20,384.00	\$10,296.00	\$51,480.0

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טו	CWBS	Task Name LLNL Mech. Fab: Assembly Tech	OBS	PHASE B&H	Risk 0	Units 10 wks	PED (Direct) \$0.00	M&S (Direct) \$0.00	Labor (Direct) \$0.00	Direct Cost \$20,800.00	Overhead Cost \$0.00	Contingency Cost \$0.00	Total Cost \$0.0
057	1.3.1.6.7.5	Computer Programming and interface	LLNL	ED&I	2	4 wks	\$0.00	\$0.00	\$8,640.00	\$8,640.00	\$8,467.20	\$4,276.80	\$21,384.0
		LLNL Physicist -Scientist		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$8,640.00	\$0.00	\$0.00	\$0.
)58	1.3.1.6.7.5	Assemble Stand	LLNL	B&H	2	4 wks	\$0.00	\$0.00	\$8,320.00	\$8,320.00	\$8,153.60	\$4,118.40	\$20,592.
		LLNL Mech. Fab: Assembly Tech		B&H	0	4 wks	\$0.00	\$0.00	\$0.00	\$8,320.00	\$0.00	\$0.00	\$0.
059	1.3.1.6.7.5	EE Wireing	LLNL	B&H	2	4 wks	\$0.00	\$0.00	\$8,320.00	\$8,320.00	\$8,153.60	\$4,118.40	\$20,592
		LLNL PCD:Inst-Cabling-Elec Fab		B&H	0	4 wks	\$0.00	\$0.00	\$0.00	\$8,320.00	\$0.00	\$0.00	\$0.
060	1.3.1.6.7.5	System Vacuum test	LLNL	ED&I	2	2 wks	\$0.00	\$0.00	\$5,040.00	\$5,040.00	\$4,939.20	\$2,494.80	\$12,474
		LLNL AD: Mech/Vacuum Engineer		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$5,040.00	\$0.00	\$0.00	\$0.
061	1.3.1.6.7.6	Install and Test	LLNL		0	4.8 wks	\$0.00	\$0.00	\$12,064.00	\$12,064.00	\$11,822.72	\$0.00	\$23,886.
062	1.3.1.6.7.6	Shipping	LLNL	B&H	0	0.8 wks	\$0.00	\$0.00	\$1,984.00	\$1,984.00	\$1,944.32	\$0.00	\$3,928.
		LLNL T&M Crafts - Union Equip. Op.		B&H	2	0.8 wks	\$0.00	\$0.00	\$0.00	\$1,984.00	\$0.00	\$0.00	\$0.
063	1.3.1.6.7.6	Install	LLNL	B&H	0	2 wks	\$0.00	\$0.00	\$5,040.00	\$5,040.00	\$4,939.20	\$0.00	\$9,979
		LLNL T&M Crafts - Union Pipefitter		B&H	2	2 wks	\$0.00	\$0.00	\$0.00	\$5,040.00	\$0.00	\$0.00	\$0.
064	1.3.1.6.7.6	Final Acceptance Test	LLNL	ED&I	0	2 wks	\$0.00	\$0.00	\$5,040.00	\$5,040.00	\$4,939.20	\$0.00	\$9,979
		LLNL AD: Mech/Vacuum Engineer		ED&I	2	2 wks	\$0.00	\$0.00	\$0.00	\$5,040.00	\$0.00	\$0.00	\$0
065	1.3.1.6.8	Diagnostic Tank A4 1			0	16.1 wks	\$0.00	\$347,000.00	\$35,268.00	\$382,268.00	\$100,145.64	\$120,603.41	\$603,017.
066	1.3.1.6.8.1	PDR	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
067	1.3.1.6.8.2	FDR	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
068	1.3.1.6.8.3	Procurement	LLNL		0	0 wks	\$0.00	\$347,000.00	\$0.00	\$347,000.00	\$65,583.00	\$103,145.75	\$515,728.
069	1.3.1.6.8.3	Tank with 3 doors and lid	LLNL	M&S	2	0 wks	\$0.00	\$50,000.00	\$0.00	\$50,000.00	\$9,450.00	\$14,862.50	\$74,312
		LLNL M&S Total		M&S	0	50,000	\$0.00	\$0.00	\$0.00	\$50,000.00	\$0.00	\$0.00	\$0.
070	1.3.1.6.8.3	Observation ports 3@(.65+.2)	LLNL	M&S	2	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$567.00	\$891.75	\$4,458
		LLNL M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0.
071	1.3.1.6.8.3	Turbo System -2101	LLNL	M&S	2	0 wks	\$0.00	\$35,000.00	\$0.00	\$35,000.00	\$6,615.00	\$10,403.75	\$52,018.
		LLNL M&S Total		M&S	0	35,000	\$0.00	\$0.00	\$0.00	\$35,000.00	\$0.00	\$0.00	\$0.
072	1.3.1.6.8.3	Display Panel-2101	LLNL	M&S	2	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$567.00	\$891.75	\$4,458.
		LLNL M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0.
073	1.3.1.6.8.3	Scroll Dry Pump	LLNL	M&S	2	0 wks	\$0.00	\$13,000.00	\$0.00	\$13,000.00	\$2,457.00	\$3,864.25	\$19,321
		LLNL M&S Total		M&S	0	13,000	\$0.00	\$0.00	\$0.00	\$13,000.00	\$0.00	\$0.00	\$0.
074	1.3.1.6.8.3	Pressure Baratron MKS Head 750B	LLNL	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$189.00	\$297.25	\$1,486
		LLNL M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0
075	1.3.1.6.8.3	Pressure Controller Baratron MKS	LLNL	M&S	2	0 wks	\$0.00	\$5,000.00	\$0.00	\$5,000.00	\$945.00	\$1,486.25	\$7,431
		LLNL M&S Total		M&S	0	5,000	\$0.00	\$0.00	\$0.00	\$5,000.00	\$0.00	\$0.00	\$0.
076	1.3.1.6.8.3	Gate Valve MDC 8"	LLNL	M&S	2	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000,00	\$567.00	\$891.75	\$4,458.

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ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		LLNL M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0.00
5077	1.3.1.6.8.3		LLNL	M&S	2	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$567.00	\$891.75	\$4,458.75
		LLNL M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0.00
5078	1.3.1.6.8.3	Key vacuum map ADP-3500	LLNL	M&S	2	0 wks	\$0.00	\$4,000.00	\$0.00	\$4,000.00	\$756.00	\$1,189.00	\$5,945.00
		LLNL M&S Total		M&S	0	4,000	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$0.00
5079	1.3.1.6.8.3	Optical rails (2m@0.5)	LLNL	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$189.00	\$297.25	\$1,486.25
		LLNL M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.00
5080	1.3.1.6.8.3	2 axis Rail adjustment	LLNL	M&S	2	0 wks	\$0.00	\$14,000.00	\$0.00	\$14,000.00	\$2,646.00	\$4,161.50	\$20,807.50
		LLNL M&S Total		M&S	0	14,000	\$0.00	\$0.00	\$0.00	\$14,000.00	\$0.00	\$0.00	\$0.00
5081	1.3.1.6.8.3	1 axis Rail adjustment and pivot	LLNL	M&S	2	0 wks	\$0.00	\$8,000.00	\$0.00	\$8,000.00	\$1,512.00	\$2,378.00	\$11,890.00
		LLNL M&S Total		M&S	0	8,000	\$0.00	\$0.00	\$0.00	\$8,000.00	\$0.00	\$0.00	\$0.00
5082	1.3.1.6.8.3	DI Imager insertion stage	LLNL	M&S	2	0 wks	\$0.00	\$20,000.00	\$0.00	\$20,000.00	\$3,780.00	\$5,945.00	\$29,725.00
		LLNL M&S Total		M&S	0	20,000	\$0.00	\$0.00	\$0.00	\$20,000.00	\$0.00	\$0.00	\$0.00
5083	1.3.1.6.8.3		LLNL	M&S	2	0 wks	\$0.00	\$8,000.00	\$0.00	\$8,000.00	\$1,512.00	\$2,378.00	\$11,890.00
	110.110.010	-		M&S	0								
		LLNL M&S Total				8,000	\$0.00	\$0.00	\$0.00	\$8,000.00	\$0.00	\$0.00	\$0.00
5084	1.3.1.6.8.3	·	LLNL	M&S	2	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
		LLNL M&S Total		M&S	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
5085	1.3.1.6.8.3	4 axis Optics Stage + Carrer	LLNL	M&S	2	0 wks	\$0.00	\$29,000.00	\$0.00	\$29,000.00	\$5,481.00	\$8,620.25	\$43,101.25
		LLNL M&S Total		M&S	0	29,000	\$0.00	\$0.00	\$0.00	\$29,000.00	\$0.00	\$0.00	\$0.00
5086	1.3.1.6.8.3	6 axis Aperture Stage + Carrer	LLNL	M&S	2	0 wks	\$0.00	\$43,000.00	\$0.00	\$43,000.00	\$8,127.00	\$12,781.75	\$63,908.75
		LLNL M&S Total		M&S	0	43,000	\$0.00	\$0.00	\$0.00	\$43,000.00	\$0.00	\$0.00	\$0.00
5087	1.3.1.6.8.3	Base Plates	LLNL	M&S	2	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$567.00	\$891.75	\$4,458.75
		LLNL M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0.00
5088	1.3.1.6.8.3	Stage Feedthroughs 21*0.3	LLNL	M&S	2	0 wks	\$0.00	\$6,000.00	\$0.00	\$6,000.00	\$1,134.00	\$1,783.50	\$8,917.50
		LLNL M&S Total		M&S	0	6,000	\$0.00	\$0.00	\$0.00	\$6,000.00	\$0.00	\$0.00	\$0.00
5089	1.3.1.6.8.3	Camera Feedthroughs 5*0.3	LLNL	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$378.00	\$594.50	\$2,972.50
		LLNL M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.00
5090	1.3.1.6.8.3	Laser Feedthroughs 4*0.3	LLNL	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$189.00	\$297.25	\$1,486.25
		LLNL M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.00
5091	1.3.1.6.8.3		LLNL	M&S	2	0 wks	\$0.00	\$8,000.00	\$0.00	\$8,000.00	\$1,512.00	\$2,378.00	\$11,890.00
5091	1.3.1.0.0.3		LLINL										
		LLNL M&S Total		M&S	0	8,000	\$0.00	\$0.00	\$0.00	\$8,000.00	\$0.00	\$0.00	\$0.00
5092	1.3.1.6.8.3		LLNL	M&S	2	0 wks	\$0.00	\$17,000.00	\$0.00	\$17,000.00	\$3,213.00	\$5,053.25	\$25,266.25
		LLNL M&S Total		M&S	0	17,000	\$0.00	\$0.00	\$0.00	\$17,000.00	\$0.00	\$0.00	\$0.00
5093	1.3.1.6.8.3	Motor Driver	LLNL	M&S	2	0 wks	\$0.00	\$35,000.00	\$0.00	\$35,000.00	\$6,615.00	\$10,403.75	\$52,018.75
		LLNL M&S Total		M&S	0	35,000	\$0.00	\$0.00	\$0.00	\$35,000.00	\$0.00	\$0.00	\$0.00

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ID		Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
5094	1.3.1.6.8.3	Motor PCI card	LLNL	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$189.00	\$297.25	\$1,486.2
		LLNL M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.0
095	1.3.1.6.8.3	Computer	LLNL	M&S	2	0 wks	\$0.00	\$10,000.00	\$0.00	\$10,000.00	\$1,890.00	\$2,972.50	\$14,862.5
		LLNL M&S Total		M&S	0	10,000	\$0.00	\$0.00	\$0.00	\$10,000.00	\$0.00	\$0.00	\$0.0
096	1.3.1.6.8.3	Monitor	LLNL	M&S	2	0 wks	\$0.00	\$4,000.00	\$0.00	\$4,000.00	\$756.00	\$1,189.00	\$5,945.0
		LLNL M&S Total		M&S	0	4,000	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$0.0
097	1.3.1.6.8.3	EPICS IF	LLNL	M&S	2	0 wks	\$0.00	\$17,000.00	\$0.00	\$17,000.00	\$3,213.00	\$5,053.25	\$25,266.2
		LLNL M&S Total		M&S	0	17,000	\$0.00	\$0.00	\$0.00	\$17,000.00	\$0.00	\$0.00	\$0.0
098	1.3.1.6.8.4	Machined parts	LLNL		0	0.7 wks	\$0.00	\$0.00	\$1,596.00	\$1,596.00	\$1,564.08	\$790.02	\$3,950.1
099	1.3.1.6.8.4	Base Plate	LLNL	B&H	2	0.1 wks	\$0.00	\$0.00	\$228.00	\$228.00	\$223.44	\$112.86	\$564.3
		LLNL Mech. Fab: Machine Shop		B&H	2	0.1 wks	\$0.00	\$0.00	\$0.00	\$228.00	\$0.00	\$0.00	\$0.0
100	1.3.1.6.8.4	Pivot	LLNL	B&H	2	0.1 wks	\$0.00	\$0.00	\$228.00	\$228.00	\$223.44	\$112.86	\$564.3
\dashv		LLNL Mech. Fab: Machine Shop		B&H	2	0.1 wks	\$0.00	\$0.00	\$0.00	\$228.00	\$0.00	\$0.00	\$0.0
101	1.3.1.6.8.4	Rail Alignment	LLNL	B&H	2	0.1 wks	\$0.00	\$0.00	\$228.00	\$228.00	\$223.44	\$112.86	\$564.3
\dashv		LLNL Mech. Fab: Machine Shop		B&H	2	0.1 wks	\$0.00	\$0.00	\$0.00	\$228.00	\$0.00	\$0.00	\$0.0
102	1.3.1.6.8.4	Aperture Stage	LLNL	B&H	2	0.1 wks	\$0.00	\$0.00	\$228.00	\$228.00	\$223.44	\$112.86	\$564.
		LLNL Mech. Fab: Machine Shop		B&H	2	0.1 wks	\$0.00	\$0.00	\$0.00	\$228.00	\$0.00	\$0.00	\$0.
103	1.3.1.6.8.4	Optics Stage	LLNL	B&H	2	0.1 wks	\$0.00	\$0.00	\$228.00	\$228.00	\$223.44	\$112.86	\$564.3
_		. LLNL Mech. Fab: Machine Shop		B&H	2	0.1 wks	\$0.00	\$0.00	\$0.00	\$228.00	\$0.00	\$0.00	\$0.0
104	1.3.1.6.8.4	DI Base Plate	LLNL	B&H	2	0.2 wks	\$0.00	\$0.00	\$456.00	\$456.00	\$446.88	\$225.72	\$1,128.
104	1.0.1.0.0.4	LLNL Mech. Fab: Machine Shop	LLIVE	B&H	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$456.00	\$0.00	\$0.00	\$0.
105	1.3.1.6.8.5	Assembly and Test	LLNL	Dan	0	13 wks	\$0.00	\$0.00	\$27.640.00	\$27.640.00	\$27,087.20	\$13.681.80	\$68.409.0
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106	1.3.1.6.8.5	Assemble vaccum system	LLNL	B&H	2	6 wks	\$0.00	\$0.00	\$12,480.00	\$12,480.00	\$12,230.40	\$6,177.60	\$30,888.
		LLNL Mech. Fab: Assembly Tech		B&H	0	6 wks	\$0.00	\$0.00	\$0.00	\$12,480.00	\$0.00	\$0.00	\$0.
107	1.3.1.6.8.5	Computer Programming and interface	LLNL	ED&I	2	2 wks	\$0.00	\$0.00	\$4,320.00	\$4,320.00	\$4,233.60	\$2,138.40	\$10,692.
		LLNL Physicist -Scientist		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,320.00	\$0.00	\$0.00	\$0.
108	1.3.1.6.8.5	Assemble Stand	LLNL	B&H	2	2 wks	\$0.00	\$0.00	\$4,160.00	\$4,160.00	\$4,076.80	\$2,059.20	\$10,296.
		LLNL Mech. Fab: Assembly Tech		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,160.00	\$0.00	\$0.00	\$0.
109	1.3.1.6.8.5	EE Wireing	LLNL	B&H	2	2 wks	\$0.00	\$0.00	\$4,160.00	\$4,160.00	\$4,076.80	\$2,059.20	\$10,296.
\dashv		LLNL PCD:Inst-Cabling-Elec Fab		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,160.00	\$0.00	\$0.00	\$0.
110	1.3.1.6.8.5	System Vacuum test	LLNL	ED&I	2	1 wk	\$0.00	\$0.00	\$2,520.00	\$2,520.00	\$2,469.60	\$1,247.40	\$6,237.
\dashv		LLNL AD: Mech/Vacuum Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,520.00	\$0.00	\$0.00	\$0.
111	1.3.1.6.8.6	Install and Test	LLNL		0	2.4 wks	\$0.00	\$0.00	\$6,032.00	\$6,032.00	\$5,911.36	\$2,985.84	\$14,929.2
112	1.3.1.6.8.6	Shipping	LLNL	B&H	2	0.4 wks	\$0.00	\$0.00	\$992.00	\$992.00	\$972.16	\$491.04	\$2,455
_		LLNL T&M Crafts - Union Equip. Op.		B&H	0	0.4 wks	\$0.00	\$0.00	\$0.00	\$992.00	\$0.00	\$0.00	\$0.0

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ID		Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
113	1.3.1.6.8.6	Install	LLNL	B&H	2	1 wk	\$0.00	\$0.00	\$2,520.00	\$2,520.00	\$2,469.60	\$1,247.40	\$6,237.0
		LLNL T&M Crafts - Union Pipefitter		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,520.00	\$0.00	\$0.00	\$0.0
114	1.3.1.6.8.6	Final Acceptance Test	LLNL	ED&I	2	1 wk	\$0.00	\$0.00	\$2,520.00	\$2,520.00	\$2,469.60	\$1,247.40	\$6,237.
		LLNL AD: Mech/Vacuum Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,520.00	\$0.00	\$0.00	\$0.
115	1.3.1.6.9	Total Energy			0	38.5 wks	\$0.00	\$137,000.00	\$87,208.00	\$224,208.00	\$111,356.84	\$74,741.61	\$410,306.
16	1.3.1.6.9.1	PDR	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
17	1.3.1.6.9.2	FDR	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
18	1.3.1.6.9.3	Data Acquisition	LLNL		0	1 wk	\$0.00	\$39,000.00	\$2,080.00	\$41,080.00	\$9,409.40	\$12,622.35	\$63,111
19	1.3.1.6.9.3	Computer labor	LLNL	B&H	2	1 wk	\$0.00	\$0.00	\$2,080.00	\$2,080.00	\$2,038.40	\$1,029.60	\$5,148
\dashv		LLNL PCD:Technician		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,080.00	\$0.00	\$0.00	\$0
120	1.3.1.6.9.3	Computer	LLNL	M&S	2	0 wks	\$0.00	\$10,000.00	\$0.00	\$10,000.00	\$1,890.00	\$2,972.50	\$14,862
\dashv		LLNL M&S Total		M&S	0	10,000	\$0.00	\$0.00	\$0.00	\$10,000.00	\$0.00	\$0.00	\$0
21	1.3.1.6.9.3	Monitor	LLNL	M&S	2	0 wks	\$0.00	\$4,000.00	\$0.00	\$4,000.00	\$756.00	\$1,189.00	\$5,945
\dashv		LLNL M&S Total		M&S	0	4,000	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$0
22	1.3.1.6.9.3	Stage controller Channel-Card	LLNL	M&S	2	0 wks	\$0.00	\$7,000.00	\$0.00	\$7,000.00	\$1,323.00	\$2,080.75	\$10,403
\dashv		LLNL M&S Total		M&S	0	7,000	\$0.00	\$0.00	\$0.00	\$7,000.00	\$0.00	\$0.00	\$0
23	1.3.1.6.9.3	GPIs Card	LLNL	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$189.00	\$297.25	\$1,486
\dashv		LLNL M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0
24	1.3.1.6.9.3	Diagnostic Hardware & Controller	LLNL	M&S	2	0 wks	\$0.00	\$17,000.00	\$0.00	\$17,000.00	\$3,213.00	\$5,053.25	\$25,266
		LLNL M&S Total		M&S	0	17,000	\$0.00	\$0.00	\$0.00	\$17,000.00	\$0.00	\$0.00	\$0
125	1.3.1.6.9.4	Production unit	LLNL		0	37.5 wks	\$0.00	\$98,000.00	\$85,128.00	\$183,128.00	\$101,947.44	\$62,119.26	\$347,194
26	1.3.1.6.9.4	Thermal Semiconductor purchace	LLNL	M&S	0	0 wks	\$0.00	\$8,000.00	\$0.00	\$8,000.00	\$1,512.00	\$0.00	\$9,512
\dashv		LLNL M&S Total		M&S	0	8,000	\$0.00	\$0.00	\$0.00	\$8,000.00	\$0.00	\$0.00	\$0
27	1.3.1.6.9.4	Machining for transfer measurements	LLNL	ED&I	2	2 wks	\$0.00	\$0.00	\$5,600.00	\$5,600.00	\$5,488.00	\$2,772.00	\$13,860
\dashv		LLNL Project Management		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$5,600.00	\$0.00	\$0.00	\$0
28	1.3.1.6.9.4	Transfer measurements	LLNL	ED&I	2	2 wks	\$0.00	\$0.00	\$4,320.00	\$4,320.00	\$4,233.60	\$2,138.40	\$10,692
\dashv		LLNL Physicist -Scientist		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,320.00	\$0.00	\$0.00	\$0
29	1.3.1.6.9.4	Sensor head fabrication	LLNL	ED&I	2	2 wks	\$0.00	\$0.00	\$4,960.00	\$4,960.00	\$4,860.80	\$2,455.20	\$12,276
\dashv		LLNL Electrical Engineer		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,960.00	\$0.00	\$0.00	\$0
30	1.3.1.6.9.4	Sensor head machining	LLNL	ED&I	2	1 wk	\$0.00	\$0.00	\$2,800.00	\$2,800.00	\$2,744.00	\$1,386.00	\$6,930
\dashv		LLNL Project Management		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,800.00	\$0.00	\$0.00	\$0
31	1.3.1.6.9.4	Cold Head fabrication	LLNL	B&H	2	3 wks	\$0.00	\$0.00	\$6,840.00	\$6,840.00	\$6,703.20	\$3,385.80	\$16,92
\dashv		LLNL Mech. Fab: Machine Shop		В&Н	0	3 wks	\$0.00	\$0.00	\$0.00	\$6,840.00	\$0.00	\$0.00	\$0
32	1.3.1.6.9.4	Cold Head material	LLNL	M&S	2	0 wks	\$0.00	\$5,000.00	\$0.00	\$5,000.00	\$945.00	\$1,486.25	\$7,43
		LLNL M&S Total		M&S	0	5,000	\$0.00	\$0.00	\$0.00	\$5,000.00	\$0.00	\$0.00	\$0

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ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
133	1.3.1.6.9.4	Cold Head mount fabrication	LLNL	B&H	0	3 wks	\$0.00	\$0.00	\$6,840.00	\$6,840.00	\$6,703.20	\$0.00	\$13,543.
		LLNL Mech. Fab: Machine Shop		B&H	2	3 wks	\$0.00	\$0.00	\$0.00	\$6,840.00	\$0.00	\$0.00	\$0.
34	1.3.1.6.9.4	Cold Head mount material	LLNL	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$189.00	\$297.25	\$1,486.
\dashv		LLNL M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.
35	1.3.1.6.9.4	Black body materials	LLNL	M&S	2	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$567.00	\$891.75	\$4,458
\dashv		LLNL M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0
36	1.3.1.6.9.4	Black body fabrication	LLNL	B&H	0	3 wks	\$0.00	\$0.00	\$6,840.00	\$6,840.00	\$6,703.20	\$0.00	\$13,543
\dashv		LLNL Mech. Fab: Machine Shop		B&H	0	3 wks	\$0.00	\$0.00	\$0.00	\$6,840.00	\$0.00	\$0.00	\$0
37	1.3.1.6.9.4	Water Absorber Purchace	LLNL	M&S	2	0 wks	\$0.00	\$35,000.00	\$0.00	\$35,000.00	\$6,615.00	\$10,403.75	\$52,018
\dashv		LLNL M&S Total		M&S	0	35,000	\$0.00	\$0.00	\$0.00	\$35,000.00	\$0.00	\$0.00	\$0
38	1.3.1.6.9.4	Water Absorber Fabrication	LLNL	B&H	2	2 wks	\$0.00	\$0.00	\$4,560.00	\$4,560.00	\$4,468.80	\$2,257.20	\$11,286
\dashv		LLNL Mech. Fab: Machine Shop		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,560.00	\$0.00	\$0.00	\$0
39	1.3.1.6.9.4	Front End Electronics Purchace	LLNL	M&S	2	0 wks	\$0.00	\$10,000.00	\$0.00	\$10,000.00	\$1,890.00	\$2,972.50	\$14,862
		LLNL M&S Total		M&S	0	10,000	\$0.00	\$0.00	\$0.00	\$10,000.00	\$0.00	\$0.00	\$0
10	1.3.1.6.9.4	Front End Electronics fab	LLNL	B&H	2	2 wks	\$0.00	\$0.00	\$4,160.00	\$4,160.00	\$4,076.80	\$2,059.20	\$10,29
\dashv		LLNL PCD:Inst-Cabling-Elec Fab		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,160.00	\$0.00	\$0.00	\$
11	1.3.1.6.9.4	Signal Processing Electronics Purchace	LLNL	M&S	2	0 wks	\$0.00	\$10,000.00	\$0.00	\$10,000.00	\$1,890.00	\$2,972.50	\$14,86
\dashv		LLNL M&S Total		M&S	0	10,000	\$0.00	\$0.00	\$0.00	\$10,000.00	\$0.00	\$0.00	\$
42	1.3.1.6.9.4	Signal Processing Electronics fab	LLNL	B&H	2	2 wks	\$0.00	\$0.00	\$4,160.00	\$4,160.00	\$4,076.80	\$2,059.20	\$10,29
\dashv		LLNL PCD:Inst-Cabling-Elec Fab		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,160.00	\$0.00	\$0.00	\$
43	1.3.1.6.9.4	Computer Interface Electronics Purchace	LLNL	M&S	2	0 wks	\$0.00	\$10,000.00	\$0.00	\$10,000.00	\$1,890.00	\$2,972.50	\$14,86
		LLNL M&S Total		M&S	0	10,000	\$0.00	\$0.00	\$0.00	\$10,000.00	\$0.00	\$0.00	\$
44	1.3.1.6.9.4	Computer Interface Electronics fab	LLNL	B&H	2	2 wks	\$0.00	\$0.00	\$4,160.00	\$4,160.00	\$4,076.80	\$2,059.20	\$10,29
		LLNL PCD:Inst-Cabling-Elec Fab		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,160.00	\$0.00	\$0.00	\$
45	1.3.1.6.9.4	Temperature Standard	LLNL	M&S	2	0 wks	\$0.00	\$12,000.00	\$0.00	\$12,000.00	\$2,268.00	\$3,567.00	\$17,83
		LLNL M&S Total		M&S	0	12,000	\$0.00	\$0.00	\$0.00	\$12,000.00	\$0.00	\$0.00	\$
46	1.3.1.6.9.4	Temperature Standard Electronics	LLNL	M&S	2	0 wks	\$0.00	\$4,000.00	\$0.00	\$4,000.00	\$756.00	\$1,189.00	\$5,94
\dashv		LLNL M&S Total		M&S	0	4,000	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$
17	1.3.1.6.9.4	Electrical assembly	LLNL	B&H	2	4 wks	\$0.00	\$0.00	\$8,320.00	\$8,320.00	\$8,153.60	\$4,118.40	\$20,59
\dashv		LLNL PCD:Inst-Cabling-Elec Fab		B&H	0	4 wks	\$0.00	\$0.00	\$0.00	\$8,320.00	\$0.00	\$0.00	\$
8	1.3.1.6.9.4	Mechanical assembly	LLNL	B&H	2	4 wks	\$0.00	\$0.00	\$8,320.00	\$8,320.00	\$8,153.60	\$4,118.40	\$20,59
\dashv		LLNL Mech. Fab: Assembly Tech		B&H	0	4 wks	\$0.00	\$0.00	\$0.00	\$8,320.00	\$0.00	\$0.00	\$
49	1.3.1.6.9.4	Software installation	LLNL	ED&I	2	0.1 wks	\$0.00	\$0.00	\$232.00	\$232.00	\$227.36	\$114.84	\$57
\dashv		LLNL Controls: Programmer		ED&I	0	0.1 wks	\$0.00	\$0.00	\$0.00	\$232.00	\$0.00	\$0.00	\$
50	1.3.1.6.9.4	Electrical acceptance test	LLNL	ED&I	2	4 wks	\$0.00	\$0.00	\$9,920.00	\$9,920.00	\$9,721.60	\$4,910.40	\$24,55

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						LCLS_CD1_TEC			I I				
ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		LLNL Electrical Engineer		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$9,920.00	\$0.00	\$0.00	\$0.00
5151	1.3.1.6.9.4	Mechanical acceptance test	LLNL	ED&I	2	0.2 wks	\$0.00	\$0.00	\$504.00	\$504.00	\$493.92	\$249.48	\$1,247.40
		LLNL Mechanical Engineer		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$504.00	\$0.00	\$0.00	\$0.00
5152	1.3.1.6.9.4	Calibration	LLNL	ED&I	2	0.6 wks	\$0.00	\$0.00	\$1,296.00	\$1,296.00	\$1,270.08	\$641.52	\$3,207.60
		LLNL Physicist -Scientist		ED&I	0	0.6 wks	\$0.00	\$0.00	\$0.00	\$1,296.00	\$0.00	\$0.00	\$0.00
5153	1.3.1.6.9.4	System acceptance test	LLNL	ED&I	2	0.6 wks	\$0.00	\$0.00	\$1,296.00	\$1,296.00	\$1,270.08	\$641.52	\$3,207.60
		LLNL Physicist -Scientist		ED&I	0	0.6 wks	\$0.00	\$0.00	\$0.00	\$1,296.00	\$0.00	\$0.00	\$0.00
5154	1.3.1.6.10	Pulse Length			0	90 wks	\$0.00	\$469,000.00	\$201,960.00	\$670,960.00	\$286,561.80	\$235,813.45	\$1,193,335.25
5155	1.3.1.6.10.1	PDR	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
5156	1.3.1.6.10.2	FDR	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
5157	1.3.1.6.10.3	Detector Fab	LLNL		0	20 wks	\$0.00	\$11,000.00	\$44,640.00	\$55,640.00	\$45,826.20	\$25,366.55	\$126,832.75
5158	1.3.1.6.10.3	Crystal Groth	LLNL	B&H	2	4 wks	\$0.00	\$0.00	\$9,120.00	\$9,120.00	\$8,937.60	\$4,514.40	\$22,572.00
		LLNL Mech. Fab: Plating & Cleaning		B&H	0	4 wks	\$0.00	\$0.00	\$0.00	\$9,120.00	\$0.00	\$0.00	\$0.00
5159	1.3.1.6.10.3	Crystal Groth	LLNL	M&S	2	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$567.00	\$891.75	\$4,458.75
		LLNL M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0.00
5160	1.3.1.6.10.3	Crystal Groth Supplies	LLNL	M&S	2	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$567.00	\$891.75	\$4,458.75
		LLNL M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0.00
5161	1.3.1.6.10.3	Llthography, processing	LLNL	B&H	2	4 wks	\$0.00	\$0.00	\$9,120.00	\$9,120.00	\$8,937.60	\$4,514.40	\$22,572.00
		LLNL Mech. Fab: Plating & Cleaning		B&H	0	4 wks	\$0.00	\$0.00	\$0.00	\$9,120.00	\$0.00	\$0.00	\$0.00
5162	1.3.1.6.10.3	Dicing, packaging, pigtailing	LLNL	B&H	2	4 wks	\$0.00	\$0.00	\$9,120.00	\$9,120.00	\$8,937.60	\$4,514.40	\$22,572.00
		LLNL Mech. Fab: Plating & Cleaning		B&H	0	4 wks	\$0.00	\$0.00	\$0.00	\$9,120.00	\$0.00	\$0.00	\$0.00
5163	1.3.1.6.10.3		LLNL	ED&I	2	8 wks	\$0.00	\$0.00		\$17,280.00	\$16,934.40	\$8.553.60	\$42,768.00
		LLNL Physicist -Scientist		ED&I	0	8 wks	\$0.00	\$0.00	\$0.00	\$17,280.00	\$0.00	\$0.00	\$0.00
5164	1.3.1.6.10.3	·	LLNL	M&S	2	0 wks	\$0.00	\$5,000.00	\$0.00	\$5,000.00	\$945.00	\$1,486.25	\$7,431.25
		LLNL M&S Total		M&S	0	5,000	\$0.00	\$0.00	\$0.00	\$5,000.00	\$0.00	\$0.00	\$0.00
5165	1.3.1.6.10.4	Input Dispersion System	LLNL	Mas	0	6 wks	\$0.00	\$18,000.00	\$13,320.00	\$31,320.00	\$16,455.60	\$11,943.90	\$59,719.50
5166	1.3.1.6.10.4		LLNL	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$378.00	\$594.50	\$2,972.50
		LLNL M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.00
5167	1.3.1.6.10.4	Fiber Bragg Grating Dispersion Module	LLNL	M&S	2	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$567.00	\$891.75	\$4,458.75
		LLNL M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0.00
5168	1.3.1.6.10.4	Optical Circulator	LLNL	M&S	2	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$567.00	\$891.75	\$4,458.75
		LLNL M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0.00
5169	1.3.1.6.10.4	Fiber polariation controller (automatic)	LLNL	M&S	2	0 wks	\$0.00	\$10,000.00	\$0.00	\$10,000.00	\$1,890.00	\$2,972.50	\$14,862.50
		LLNL M&S Total		M&S	0	10,000	\$0.00	\$0.00	\$0.00	\$10,000.00	\$0.00	\$0.00	\$0.00
5170	1.3.1.6.10.4	Assembly	LLNL	ED&I	2	1 wk	\$0.00	\$0.00	\$2,160.00	\$2,160.00	\$2,116.80	\$1,069.20	\$5,346.00

						LCLS_CD1_TEC							
ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		LLNL Physicist -Scientist		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,160.00	\$0.00	\$0.00	\$0.00
5171	1.3.1.6.10.4	Assembly Labor	LLNL	B&H	2	2 wks	\$0.00	\$0.00	\$4,560.00	\$4,560.00	\$4,468.80	\$2,257.20	\$11,286.0
		LLNL Mech. Fab: Plating & Cleaning		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,560.00	\$0.00	\$0.00	\$0.0
172	1.3.1.6.10.4	Test	LLNL	ED&I	2	2 wks	\$0.00	\$0.00	\$4,320.00	\$4,320.00	\$4,233.60	\$2,138.40	\$10,692.0
		LLNL Physicist -Scientist		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,320.00	\$0.00	\$0.00	\$0.0
5173	1.3.1.6.10.4	Test Labor	LLNL	B&H	2	1 wk	\$0.00	\$0.00	\$2,280.00	\$2,280.00	\$2,234.40	\$1,128.60	\$5,643.0
		LLNL Mech. Fab: Plating & Cleaning		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,280.00	\$0.00	\$0.00	\$0.0
5174	1.3.1.6.10.5	Time Lens Pump Source	LLNL		0	10 wks	\$0.00	\$179,000.00	\$22,200.00	\$201,200.00	\$55,587.00	\$64,196.75	\$320,983.7
5175	1.3.1.6.10.5	Ultrafast fiber laser	LLNL	M&S	2	0 wks	\$0.00	\$85,000.00	\$0.00	\$85,000.00	\$16,065.00	\$25,266.25	\$126,331.2
		LLNL M&S Total		M&S	0	85,000	\$0.00	\$0.00	\$0.00	\$85,000.00	\$0.00	\$0.00	\$0.0
5176	1.3.1.6.10.5	Amplifier & Pulse Compressor Unit	LLNL	M&S	2	0 wks	\$0.00	\$25,000.00	\$0.00	\$25,000.00	\$4,725.00	\$7,431.25	\$37,156.2
		LLNL M&S Total		M&S	0	25,000	\$0.00	\$0.00	\$0.00	\$25,000.00	\$0.00	\$0.00	\$0.0
5177	1.3.1.6.10.5	Amplitude Modulator	LLNL	M&S	2	0 wks	\$0.00	\$4,000.00	\$0.00	\$4,000.00	\$756.00	\$1,189.00	\$5,945.0
		LLNL M&S Total		M&S	0	4,000	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$0.0
5178	1.3.1.6.10.5	Modulator Driver	LLNL	M&S	2	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$567.00	\$891.75	\$4,458.7
		LLNL M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0.0
5179	1.3.1.6.10.5	RF frequency synthesizer	LLNL	M&S	2	0 wks	\$0.00	\$45,000.00	\$0.00	\$45,000.00	\$8,505.00	\$13,376.25	\$66,881.2
		LLNL M&S Total		M&S	0	45,000	\$0.00	\$0.00	\$0.00	\$45,000.00	\$0.00	\$0.00	\$0.0
5180	1.3.1.6.10.5	RF Phase Shifter or optical delay line	LLNL	M&S	2	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$567.00	\$891.75	\$4,458.7
		LLNL M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0.0
5181	1.3.1.6.10.5	10 km Single mode fiber at 1550 nm (ie SMF28)	LLNL	M&S	2	0 wks	\$0.00	\$4,000.00	\$0.00	\$4,000.00	\$756.00	\$1,189.00	\$5,945.0
		LLNL M&S Total		M&S	0	4,000	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$0.0
5182	1.3.1.6.10.5	Fiber polariation controller (automatic)	LLNL	M&S	2	0 wks	\$0.00	\$10,000.00	\$0.00	\$10,000.00	\$1,890.00	\$2,972.50	\$14,862.5
		LLNL M&S Total		M&S	0	10,000	\$0.00	\$0.00	\$0.00	\$10,000.00	\$0.00	\$0.00	\$0.0
5183	1.3.1.6.10.5	Assembly	LLNL	ED&I	2	2 wks	\$0.00	\$0.00	\$4,320.00	\$4,320.00	\$4,233.60	\$2,138.40	\$10,692.0
		LLNL Physicist -Scientist		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,320.00	\$0.00	\$0.00	\$0.0
5184	1.3.1.6.10.5	·	LLNL	B&H	2	3 wks	\$0.00	\$0.00	\$6,840.00	\$6,840.00	\$6,703.20	\$3,385.80	\$16,929.0
		LLNL Mech. Fab: Plating & Cleaning		B&H	0	3 wks	\$0.00	\$0.00	\$0.00	\$6,840.00	\$0.00	\$0.00	\$0.0
5185	1.3.1.6.10.5		LLNL	ED&I	2	3 wks	\$0.00	\$0.00	\$6,480.00	\$6,480.00	\$6,350.40	\$3,207.60	\$16,038.0
		LLNL Physicist -Scientist		ED&I	0	3 wks	\$0.00	\$0.00	\$0.00	\$6,480.00	\$0.00	\$0.00	\$0.0
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5186	1.3.1.6.10.5		LLNL	B&H	2	2 wks	\$0.00	\$0.00	\$4,560.00	\$4,560.00	\$4,468.80	\$2,257.20	\$11,286.0
-107	404045	LLNL Mech. Fab: Plating & Cleaning	1150	B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,560.00	\$0.00	\$0.00	\$0.0
5187	1.3.1.6.10.6		LLNL		0	12 wks	\$0.00	\$54,000.00	\$26,640.00	\$80,640.00	\$36,313.20	\$29,238.30	\$146,191.5
5188	1.3.1.6.10.6		LLNL	M&S	2	0 wks	\$0.00	\$46,000.00	\$0.00	\$46,000.00	\$8,694.00	\$13,673.50	\$68,367.5
		LLNL M&S Total		M&S	0	46,000	\$0.00	\$0.00	\$0.00	\$46,000.00	\$0.00	\$0.00	\$0.00

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ID		Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
189	1.3.1.6.10.6	PPLN crystal(s)	LLNL	M&S	2	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$567.00	\$891.75	\$4,458.
		LLNL M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0.0
190	1.3.1.6.10.6	oven and temp controller	LLNL	M&S	2	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$567.00	\$891.75	\$4,458.
		LLNL M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0.0
191	1.3.1.6.10.6	collimating/fiber coupling lens	LLNL	M&S	2	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
		LLNL M&S Total		M&S	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
192	1.3.1.6.10.6	small positioning stages	LLNL	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$189.00	\$297.25	\$1,486
		LLNL M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.
193	1.3.1.6.10.6	FC bulkhead connectors	LLNL	M&S	2	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
		LLNL M&S Total		M&S	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
194	1.3.1.6.10.6	package	LLNL	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$189.00	\$297.25	\$1,486
		LLNL M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.
195	1.3.1.6.10.6	Assembly	LLNL	ED&I	2	2 wks	\$0.00	\$0.00	\$4,320.00	\$4,320.00	\$4,233.60	\$2,138.40	\$10,692
		LLNL Physicist -Scientist		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,320.00	\$0.00	\$0.00	\$0.
196	1.3.1.6.10.6	Assembly Labor	LLNL	B&H	2	4 wks	\$0.00	\$0.00	\$9,120.00	\$9,120.00	\$8,937.60	\$4,514.40	\$22,572
		LLNL Mech. Fab: Plating & Cleaning		B&H	0	4 wks	\$0.00	\$0.00	\$0.00	\$9,120.00	\$0.00	\$0.00	\$0
197	1.3.1.6.10.6	Test	LLNL	ED&I	2	4 wks	\$0.00	\$0.00	\$8,640.00	\$8,640.00	\$8,467.20	\$4,276.80	\$21,384
		LLNL Physicist -Scientist		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$8,640.00	\$0.00	\$0.00	\$0.
198	1.3.1.6.10.6	Test Labor	LLNL	B&H	2	2 wks	\$0.00	\$0.00	\$4,560.00	\$4,560.00	\$4,468.80	\$2,257.20	\$11,286
		LLNL Mech. Fab: Plating & Cleaning		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,560.00	\$0.00	\$0.00	\$0.
199	1.3.1.6.10.7	Output Dispersion System	LLNL		0	6 wks	\$0.00	\$16,000.00	\$13,320.00	\$29,320.00	\$16,077.60	\$11,349.40	\$56,747.
200	1.3.1.6.10.7	Fiber Bragg Grating Dispersive Module	LLNL	M&S	2	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$567.00	\$891.75	\$4,458
		LLNL M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0.
201	1.3.1.6.10.7	Optical Circulator	LLNL	M&S	2	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$567.00	\$891.75	\$4,458
		LLNL M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0
202	1.3.1.6.10.7	Single mode fiber at 775 nm	LLNL	M&S	2	0 wks	\$0.00	\$6,000.00	\$0.00	\$6,000.00	\$1,134.00	\$1,783.50	\$8,917
		LLNL M&S Total		M&S	0	6,000	\$0.00	\$0.00	\$0.00	\$6,000.00	\$0.00	\$0.00	\$0
203	1.3.1.6.10.7	fast 2x2 switch	LLNL	M&S	2	0 wks	\$0.00	\$4,000.00	\$0.00	\$4,000.00	\$756.00	\$1,189.00	\$5,945
		LLNL M&S Total		M&S	0	4,000	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$0
204	1.3.1.6.10.7	Assembly	LLNL	ED&I	2	1 wk	\$0.00	\$0.00	\$2,160.00	\$2,160.00	\$2,116.80	\$1,069.20	\$5,346
		LLNL Physicist -Scientist		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,160.00	\$0.00	\$0.00	\$0
205	1.3.1.6.10.7	Assembly Labor	LLNL	B&H	2	2 wks	\$0.00	\$0.00	\$4,560.00	\$4,560.00	\$4,468.80	\$2,257.20	\$11,286
		LLNL Mech. Fab: Plating & Cleaning		В&Н	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,560.00	\$0.00	\$0.00	\$0
206	1.3.1.6.10.7	Test	LLNL	ED&I	2	2 wks	\$0.00	\$0.00	\$4,320.00	\$4,320.00	\$4,233.60	\$2,138.40	\$10,692
		LLNL Physicist -Scientist		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$4.320.00	\$0.00	\$0.00	\$0.

ID 5207	CWBS 1.3.1.6.10.7	Task Name Test Labor	OBS LLNL	PHASE B&H	Risk	Units 1 wk	PED (Direct)	M&S (Direct)	Labor (Direct) \$2,280.00	Direct Cost \$2,280.00	Overhead Cost \$2,234.40	Contingency Cost \$1,128.60	Total Cost \$5,643.0
5207	1.3.1.6.10.7		LLNL		2	1 WK	*****	\$0.00	- ,				
		LLNL Mech. Fab: Plating & Cleaning		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,280.00	\$0.00	\$0.00	\$0.0
208	1.3.1.6.10.8	Data Recording	LLNL		0	8 wks	\$0.00	\$152,000.00	\$17,520.00	\$169,520.00	\$45,897.60	\$50,287.40	\$265,705.0
209	1.3.1.6.10.8	Visible Streak Camera	LLNL	M&S	2	0 wks	\$0.00	\$65,000.00	\$0.00	\$65,000.00	\$12,285.00	\$19,321.25	\$96,606.2
		LLNL M&S Total		M&S	0	65,000	\$0.00	\$0.00	\$0.00	\$65,000.00	\$0.00	\$0.00	\$0.0
210	1.3.1.6.10.8	Xray Streak Camera	LLNL	M&S	2	0 wks	\$0.00	\$65,000.00	\$0.00	\$65,000.00	\$12,285.00	\$19,321.25	\$96,606.2
		LLNL M&S Total		M&S	0	65,000	\$0.00	\$0.00	\$0.00	\$65,000.00	\$0.00	\$0.00	\$0.0
211	1.3.1.6.10.8	Data Acquisition Software	LLNL	ED&I	2	6 wks	\$0.00	\$0.00	\$12,960.00	\$12,960.00	\$12,700.80	\$6,415.20	\$32,076.
		LLNL Physicist -Scientist		ED&I	0	6 wks	\$0.00	\$0.00	\$0.00	\$12,960.00	\$0.00	\$0.00	\$0.0
212	1.3.1.6.10.8	Computer	LLNL	M&S	2	0 wks	\$0.00	\$6,000.00	\$0.00	\$6,000.00	\$1,134.00	\$1,783.50	\$8,917.
		LLNL M&S Total		M&S	0	6,000	\$0.00	\$0.00	\$0.00	\$6,000.00	\$0.00	\$0.00	\$0.0
213	1.3.1.6.10.8	Monitor	LLNL	M&S	2	0 wks	\$0.00	\$4,000.00	\$0.00	\$4,000.00	\$756.00	\$1,189.00	\$5,945.
		LLNL M&S Total		M&S	0	4,000	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$0.
214	1.3.1.6.10.8	Subsystem Integration	LLNL	B&H	2	2 wks	\$0.00	\$0.00	\$4,560.00	\$4,560.00	\$4,468.80	\$2,257.20	\$11,286
		LLNL Mech. Fab: Plating & Cleaning		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,560.00	\$0.00	\$0.00	\$0.
215	1.3.1.6.10.8	Subsystem Integraton Hardware	LLNL	M&S	0	0 wks	\$0.00	\$12,000.00	\$0.00	\$12,000.00	\$2,268.00	\$0.00	\$14,268
		LLNL M&S Total		M&S	0	12,000	\$0.00	\$0.00	\$0.00	\$12,000.00	\$0.00	\$0.00	\$0.
216	1.3.1.6.10.9	Rad Sensor Laser and Assembly	LLNL		0	28 wks	\$0.00	\$39,000.00	\$64,320.00	\$103,320.00	\$70,404.60	\$43,431.15	\$217,155.
217	1.3.1.6.10.9	CW laser source procurement	LLNL	M&S	2	0 wks	\$0.00	\$20,000.00	\$0.00	\$20,000.00	\$3,780.00	\$5,945.00	\$29,725.
		LLNL M&S Total		M&S	0	20,000	\$0.00	\$0.00	\$0.00	\$20,000.00	\$0.00	\$0.00	\$0.
218	1.3.1.6.10.9	Subsystem Integration	LLNL	B&H	2	2 wks	\$0.00	\$0.00	\$4,560.00	\$4,560.00	\$4,468.80	\$2,257.20	\$11,286
		LLNL Mech. Fab: Plating & Cleaning		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,560.00	\$0.00	\$0.00	\$0.
219	1.3.1.6.10.9	Subsystem Integraton Hardware	LLNL	M&S	2	0 wks	\$0.00	\$12,000.00	\$0.00	\$12,000.00	\$2,268.00	\$3,567.00	\$17,835
		LLNL M&S Total		M&S	0	12,000	\$0.00	\$0.00	\$0.00	\$12,000.00	\$0.00	\$0.00	\$0.
220	1.3.1.6.10.9	Basic functional verification assembly	LLNL	ED&I	2	5 wks	\$0.00	\$0.00	\$12,600.00	\$12,600.00	\$12,348.00	\$6,237.00	\$31,185
		LLNL Mechanical Engineer		ED&I	0	5 wks	\$0.00	\$0.00	\$0.00	\$12,600.00	\$0.00	\$0.00	\$0.
221	1.3.1.6.10.9	Basic functional verification tests	LLNL	ED&I	2	8 wks	\$0.00	\$0.00	\$17,280.00	\$17,280.00	\$16,934.40	\$8,553.60	\$42,768
		LLNL Physicist -Scientist		ED&I	0	8 wks	\$0.00	\$0.00	\$0.00	\$17,280.00	\$0.00	\$0.00	\$0.
222	1.3.1.6.10.9	Xray calibration assembly	LLNL	ED&I	2	5 wks	\$0.00	\$0.00	\$12,600.00	\$12,600.00	\$12,348.00	\$6,237.00	\$31,185
		LLNL Mechanical Engineer		ED&I	0	5 wks	\$0.00	\$0.00	\$0.00	\$12,600.00	\$0.00	\$0.00	\$0.
223	1.3.1.6.10.9	Xray calibration	LLNL	ED&I	2	8 wks	\$0.00	\$0.00	\$17,280.00	\$17,280.00	\$16,934.40	\$8,553.60	\$42,768
		LLNL Physicist -Scientist		ED&I	0	8 wks	\$0.00	\$0.00	\$0.00	\$17,280.00	\$0.00	\$0.00	\$0.
224	1.3.1.6.10.9	Xray calibration travel	LLNL	M&S	2	0 wks	\$0.00	\$7,000.00	\$0.00	\$7,000.00	\$1,323.00	\$2,080.75	\$10,403.
		LLNL M&S Total		M&S	0	7,000	\$0.00	\$0.00	\$0.00	\$7,000.00	\$0.00	\$0.00	\$0.
225	1.3.1.6.11	Spectrometer			0	21 wks	\$0.00	\$233,000.00	\$46,120.00	\$279,120.00	\$89,234.60	\$81,349.05	\$449,703.6

ID 5226	CWBS 1.3.1.6.11.1	Task Name PDR	OBS LLNL	PHASE	Risk	Units 0 wks	PED (Direct) \$0.00	M&S (Direct) \$0.00	Labor (Direct)	Direct Cost \$0.00	Overhead Cost \$0.00	Contingency Cost \$0.00	Total Cost \$0.0
5227	1.3.1.6.11.2		LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
			LLNL				\$0.00		·			\$12,622.35	
5228	1.3.1.6.11.3	·			0	1 wk		\$39,000.00	\$2,080.00	\$41,080.00	\$9,409.40		\$63,111.7
5229	1.3.1.6.11.3	Computer labor	LLNL	B&H	2	1 wk	\$0.00	\$0.00	\$2,080.00	\$2,080.00	\$2,038.40	\$1,029.60	\$5,148.0
		LLNL PCD:Technician		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,080.00	\$0.00	\$0.00	\$0.0
5230	1.3.1.6.11.3	Computer	LLNL	M&S	2	0 wks	\$0.00	\$10,000.00	\$0.00	\$10,000.00	\$1,890.00	\$2,972.50	\$14,862.5
		LLNL M&S Total		M&S	0	10,000	\$0.00	\$0.00	\$0.00	\$10,000.00	\$0.00	\$0.00	\$0.0
5231	1.3.1.6.11.3	Monitor	LLNL	M&S	2	0 wks	\$0.00	\$4,000.00	\$0.00	\$4,000.00	\$756.00	\$1,189.00	\$5,945.0
		LLNL M&S Total		M&S	0	4,000	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$0.0
5232	1.3.1.6.11.3	Stage controller Channel-Card	LLNL	M&S	2	0 wks	\$0.00	\$7,000.00	\$0.00	\$7,000.00	\$1,323.00	\$2,080.75	\$10,403.7
		LLNL M&S Total		M&S	0	7,000	\$0.00	\$0.00	\$0.00	\$7,000.00	\$0.00	\$0.00	\$0.0
5233	1.3.1.6.11.3		LLNL	M&S	2	0 wks	\$0.00		\$0.00	\$1,000.00	\$189.00	\$297.25	\$1,486.2
		LLNL M&S Total	22.12	M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.0
5234	1.3.1.6.11.3	, and the second	LLNL	M&S	2	0 wks	\$0.00		\$0.00	\$17,000.00	\$3,213.00	\$5,053.25	\$25,266.2
		LLNL M&S Total		M&S	0	17,000	\$0.00	\$0.00	\$0.00	\$17,000.00	\$0.00	\$0.00	\$0.0
235	1.3.1.6.11.4	Grating / Crystal	LLNL		0	3 wks	\$0.00	\$68,000.00	\$6,840.00	\$74,840.00	\$19,555.20	\$14,681.30	\$109,076.5
236	1.3.1.6.11.4	Purchace Crystal	LLNL	M&S	0	0 wks	\$0.00	\$30,000.00	\$0.00	\$30,000.00	\$5,670.00	\$0.00	\$35,670.0
		LLNL M&S Total		M&S	0	30,000	\$0.00	\$0.00	\$0.00	\$30,000.00	\$0.00	\$0.00	\$0.0
5237	1.3.1.6.11.4	Crystal mount fab	LLNL	B&H	2	1 wk	\$0.00	\$0.00	\$2,280.00	\$2,280.00	\$2,234.40	\$1,128.60	\$5,643.0
		LLNL Mech. Fab: Machine Shop		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,280.00	\$0.00	\$0.00	\$0.0
5238	1.3.1.6.11.4	Crystal mount purchace	LLNL	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$189.00	\$297.25	\$1,486.2
		LLNL M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.0
5239	1.3.1.6.11.4	Purchace Grating	LLNL	M&S	2	0 wks	\$0.00	\$30,000.00	\$0.00	\$30,000.00	\$5,670.00	\$8,917.50	\$44,587.5
		LLNL M&S Total		M&S	0	30,000	\$0.00	\$0.00	\$0.00	\$30,000.00	\$0.00	\$0.00	\$0.0
5240	1.3.1.6.11.4		LLNL	B&H	2	1 wk	\$0.00	\$0.00	\$2,280.00	\$2,280.00	\$2,234.40	\$1,128.60	\$5,643.0
5240	1.3.1.6.11.4		LLINL										
		LLNL Mech. Fab: Machine Shop		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,280.00	\$0.00	\$0.00	\$0.0
5241	1.3.1.6.11.4	-	LLNL	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$189.00	\$297.25	\$1,486.2
		LLNL M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.0
242	1.3.1.6.11.4	Alignment mirror Purchace	LLNL	M&S	2	0 wks	\$0.00	\$5,000.00	\$0.00	\$5,000.00	\$945.00	\$1,486.25	\$7,431.2
		LLNL M&S Total		M&S	0	5,000	\$0.00	\$0.00	\$0.00	\$5,000.00	\$0.00	\$0.00	\$0.0
243	1.3.1.6.11.4	Alignment mirror mount fab	LLNL	B&H	2	1 wk	\$0.00	\$0.00	\$2,280.00	\$2,280.00	\$2,234.40	\$1,128.60	\$5,643.0
		LLNL Mech. Fab: Machine Shop		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,280.00	\$0.00	\$0.00	\$0.0
5244	1.3.1.6.11.4	Alignment mirror mount Purchace	LLNL	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$189.00	\$297.25	\$1,486.2
		LLNL M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.0
5245	1.3.1.6.11.5		LLNL		0	8 wks	\$0.00	\$52,000.00	\$17,360.00	\$69.360.00	\$26,840.80	\$24,050.20	\$120,251.0
JZ45	1.3.1.6.11.5	Low Energy Linear camera	LLNL		0	8 WKS	\$0.00	\$52,000.00	\$17,36U.00	909,36U.UU	⊅∠0,840.80	\$∠4,050.20	⊕120,251.0

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ID		Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
246	1.3.1.6.11.5	Purchace Linear Array	LLNL	M&S	2	0 wks	\$0.00	\$20,000.00	\$0.00	\$20,000.00	\$3,780.00	\$5,945.00	\$29,725.0
		LLNL M&S Total		M&S	0	20,000	\$0.00	\$0.00	\$0.00	\$20,000.00	\$0.00	\$0.00	\$0.0
247	1.3.1.6.11.5	Purchace Sensor board	LLNL	M&S	2	0 wks	\$0.00	\$6,000.00	\$0.00	\$6,000.00	\$1,134.00	\$1,783.50	\$8,917.5
		LLNL M&S Total		M&S	0	6,000	\$0.00	\$0.00	\$0.00	\$6,000.00	\$0.00	\$0.00	\$0.0
248	1.3.1.6.11.5	Purchace Analog board	LLNL	M&S	2	0 wks	\$0.00	\$6,000.00	\$0.00	\$6,000.00	\$1,134.00	\$1,783.50	\$8,917.5
		LLNL M&S Total		M&S	0	6,000	\$0.00	\$0.00	\$0.00	\$6,000.00	\$0.00	\$0.00	\$0.0
249	1.3.1.6.11.5	Purchace Digital board	LLNL	M&S	2	0 wks	\$0.00	\$6,000.00	\$0.00	\$6,000.00	\$1,134.00	\$1,783.50	\$8,917.5
		LLNL M&S Total		M&S	0	6,000	\$0.00	\$0.00	\$0.00	\$6,000.00	\$0.00	\$0.00	\$0.0
250	1.3.1.6.11.5	Purchace TE Cooler	LLNL	M&S	2	0 wks	\$0.00	\$4,000.00	\$0.00	\$4,000.00	\$756.00	\$1,189.00	\$5,945.0
		LLNL M&S Total		M&S	0	4,000	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$0.0
251	1.3.1.6.11.5	Purchace Cold Finger	LLNL	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$189.00	\$297.25	\$1,486.2
		LLNL M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.0
252	1.3.1.6.11.5	Fabricate Cold Finger	LLNL	B&H	2	1 wk	\$0.00	\$0.00	\$2,280.00	\$2,280.00	\$2,234.40	\$1,128.60	\$5,643.0
		LLNL Mech. Fab: Machine Shop		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,280.00	\$0.00	\$0.00	\$0.0
253	1.3.1.6.11.5	Purchace Chiller	LLNL	M&S	2	0 wks	\$0.00	\$5,000.00	\$0.00	\$5,000.00	\$945.00	\$1,486.25	\$7,431.2
		LLNL M&S Total		M&S	0	5,000	\$0.00	\$0.00	\$0.00	\$5,000.00	\$0.00	\$0.00	\$0.0
254	1.3.1.6.11.5	Purchace Housing	LLNL	M&S	2	0 wks	\$0.00	\$4,000.00	\$0.00	\$4,000.00	\$756.00	\$1,189.00	\$5,945.0
		LLNL M&S Total		M&S	0	4,000	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$0.0
255	1.3.1.6.11.5	Fabricate Housing	LLNL	B&H	2	1 wk	\$0.00	\$0.00	\$2,280.00	\$2,280.00	\$2,234.40	\$1,128.60	\$5,643.0
		LLNL Mech. Fab: Machine Shop		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,280.00	\$0.00	\$0.00	\$0.0
256	1.3.1.6.11.5	Electronic Assembly	LLNL	B&H	2	1 wk	\$0.00	\$0.00	\$2,080.00	\$2,080.00	\$2,038.40	\$1,029.60	\$5,148.0
		LLNL PCD:Inst-Cabling-Elec Fab		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,080.00	\$0.00	\$0.00	\$0.0
257	1.3.1.6.11.5	Mechanical Assembly	LLNL	B&H	2	1 wk	\$0.00	\$0.00	\$2,080.00	\$2,080.00	\$2,038.40	\$1,029.60	\$5,148.0
		LLNL Mech. Fab: Assembly Tech		В&Н	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,080.00	\$0.00	\$0.00	\$0.0
258	1.3.1.6.11.5	Calibration	LLNL	ED&I	2	2 wks	\$0.00	\$0.00	\$4,320.00	\$4,320.00	\$4,233.60	\$2,138.40	\$10,692.0
		LLNL Physicist -Scientist		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,320.00	\$0.00	\$0.00	\$0.0
259	1.3.1.6.11.5	Acceptance Test	LLNL	ED&I	2	2 wks	\$0.00	\$0.00	\$4,320.00	\$4,320.00	\$4,233.60	\$2,138.40	\$10,692.0
		LLNL Physicist -Scientist		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,320.00	\$0.00	\$0.00	\$0.0
260	1.3.1.6.11.6	Rails and Stages	LLNL		0	0 wks	\$0.00	\$25,000.00	\$0.00	\$25,000.00	\$4,725.00	\$7,431.25	\$37,156.2
261	1.3.1.6.11.6	Rail	LLNL	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$189.00	\$297.25	\$1,486.2
		LLNL M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.0
262	1.3.1.6.11.6	Linear Array Stage 3 axis	LLNL	M&S	2	0 wks	\$0.00	\$23,000.00	\$0.00	\$23,000.00	\$4,347.00	\$6,836.75	\$34,183.7
		LLNL M&S Total		M&S	0	23,000	\$0.00	\$0.00	\$0.00	\$23,000.00	\$0.00	\$0.00	\$0.0
263	1.3.1.6.11.6	Cabels	LLNL	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$189.00	\$297.25	\$1,486.2
		LLNL M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.0

ID		Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
5264	1.3.1.6.11.7	High Energy Linear camera	LLNL		0	9 wks	\$0.00	\$49,000.00	\$19,840.00	\$68,840.00	\$28,704.20	\$22,563.95	\$120,108.1
5265	1.3.1.6.11.7	Purchace Scintillator Crystal	LLNL	M&S	0	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$378.00	\$0.00	\$2,378.0
		LLNL M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.00
5266	1.3.1.6.11.7	Mount Crystal Scintillator	LLNL	ED&I	0	1 wk	\$0.00	\$0.00	\$2,480.00	\$2,480.00	\$2,430.40	\$0.00	\$4,910.4
		LLNL Electrical Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,480.00	\$0.00	\$0.00	\$0.00
5267	1.3.1.6.11.7	Purchace Linear Array	LLNL	M&S	2	0 wks	\$0.00	\$20,000.00	\$0.00	\$20,000.00	\$3,780.00	\$5,945.00	\$29,725.0
		LLNL M&S Total		M&S	0	20,000	\$0.00	\$0.00	\$0.00	\$20,000.00	\$0.00	\$0.00	\$0.00
5268	1.3.1.6.11.7	Purchace Sensor board	LLNL	M&S	2	0 wks	\$0.00	\$6,000.00	\$0.00	\$6,000.00	\$1,134.00	\$1,783.50	\$8,917.5
		LLNL M&S Total		M&S	0	6,000	\$0.00	\$0.00	\$0.00	\$6,000.00	\$0.00	\$0.00	\$0.00
5269	1.3.1.6.11.7	Purchace Analog board	LLNL	M&S	2	0 wks	\$0.00	\$6,000.00	\$0.00	\$6,000.00	\$1,134.00	\$1,783.50	\$8,917.5
		LLNL M&S Total		M&S	0	6,000	\$0.00	\$0.00	\$0.00	\$6,000.00	\$0.00	\$0.00	\$0.00
5270	1.3.1.6.11.7	Purchace Digital board	LLNL	M&S	2	0 wks	\$0.00	\$6,000.00	\$0.00	\$6,000.00	\$1,134.00	\$1,783.50	\$8,917.5
		LLNL M&S Total		M&S	0	6,000	\$0.00	\$0.00	\$0.00	\$6,000.00	\$0.00	\$0.00	\$0.00
5271	1.3.1.6.11.7	Purchace TE Cooler	LLNL	M&S	2	0 wks	\$0.00	\$4,000.00	\$0.00	\$4,000.00	\$756.00	\$1,189.00	\$5,945.0
0271	1.0.1.0.11.7	LLNL M&S Total	LEIVE	M&S	0	4,000	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$0.00
			LLNL										
5272	1.3.1.6.11.7	Purchace Cold Finger	LLNL	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$189.00	\$297.25	\$1,486.2
		LLNL M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.00
5273	1.3.1.6.11.7	Fabricate Cold Finger	LLNL	B&H	2	1 wk	\$0.00	\$0.00	\$2,280.00	\$2,280.00	\$2,234.40	\$1,128.60	\$5,643.0
		LLNL Mech. Fab: Machine Shop		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,280.00	\$0.00	\$0.00	\$0.00
5274	1.3.1.6.11.7	Purchace Housing	LLNL	M&S	2	0 wks	\$0.00	\$4,000.00	\$0.00	\$4,000.00	\$756.00	\$1,189.00	\$5,945.0
		LLNL M&S Total		M&S	0	4,000	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$0.00
5275	1.3.1.6.11.7	Fabricate Housing	LLNL	B&H	2	1 wk	\$0.00	\$0.00	\$2,280.00	\$2,280.00	\$2,234.40	\$1,128.60	\$5,643.0
		LLNL Mech. Fab: Machine Shop		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,280.00	\$0.00	\$0.00	\$0.00
5276	1.3.1.6.11.7	Electronic Assembly	LLNL	B&H	2	1 wk	\$0.00	\$0.00	\$2,080.00	\$2,080.00	\$2,038.40	\$1,029.60	\$5,148.0
		LLNL PCD:Inst-Cabling-Elec Fab		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,080.00	\$0.00	\$0.00	\$0.00
5277	1.3.1.6.11.7	Mechanical Assembly	LLNL	B&H	2	1 wk	\$0.00	\$0.00	\$2,080.00	\$2,080.00	\$2,038.40	\$1,029.60	\$5,148.0
		LLNL Mech. Fab: Assembly Tech		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,080.00	\$0.00	\$0.00	\$0.00
5278	1.3.1.6.11.7	Calibration	LLNL	ED&I	2	2 wks	\$0.00	\$0.00	\$4,320.00	\$4,320.00	\$4,233.60	\$2,138.40	\$10,692.0
		LLNL Physicist -Scientist		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,320.00	\$0.00	\$0.00	\$0.00
5279	1.3.1.6.11.7	Acceptance Test	LLNL	ED&I	2	2 wks	\$0.00	\$0.00	\$4,320.00	\$4,320.00	\$4,233.60	\$2,138.40	\$10,692.0
		LLNL Physicist -Scientist	LLIVE	ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,320.00	\$0.00	\$0.00	\$0.00
5280	1.3.1.6.12	Spatial Coherence	LLNL	LDWI	0	52 wks	\$0.00	\$50,000.00	\$128,040.00	\$178,040.00	\$134,929.20	\$78,242.30	\$391,211.50
5281	1.3.1.6.12.1	Spatial Conference PDR	LLNL		0	0 wks	\$0.00	\$0.00	\$128,040.00	\$0.00	\$134,929.20	\$76,242.30	\$391,211.30

5282	1.3.1.6.12.2		LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
5283	1.3.1.6.12.3	Low Energy Slits	LLNL		0	33 wks	\$0.00	\$35,000.00	\$81,840.00	\$116,840.00	\$86,818.20	\$50,914.55	\$254,572.75

ID		Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
284	1.3.1.6.12.3	Fabrate Masks	LLNL	M&S	2	0 wks	\$0.00	\$12,000.00	\$0.00	\$12,000.00	\$2,268.00	\$3,567.00	\$17,835.0
		LLNL M&S Total		M&S	0	12,000	\$0.00	\$0.00	\$0.00	\$12,000.00	\$0.00	\$0.00	\$0.0
285	1.3.1.6.12.3	Etch	LLNL	ED&I	2	12 wks	\$0.00	\$0.00	\$29,760.00	\$29,760.00	\$29,164.80	\$14,731.20	\$73,656.
		LLNL Electrical Engineer		ED&I	0	12 wks	\$0.00	\$0.00	\$0.00	\$29,760.00	\$0.00	\$0.00	\$0.
286	1.3.1.6.12.3	Dice	LLNL	ED&I	2	12 wks	\$0.00	\$0.00	\$29,760.00	\$29,760.00	\$29,164.80	\$14,731.20	\$73,656
		LLNL Electrical Engineer		ED&I	0	12 wks	\$0.00	\$0.00	\$0.00	\$29,760.00	\$0.00	\$0.00	\$0
287	1.3.1.6.12.3	Mount	LLNL	ED&I	2	9 wks	\$0.00	\$0.00	\$22,320.00	\$22,320.00	\$21,873.60	\$11,048.40	\$55,242
		LLNL Electrical Engineer		ED&I	0	9 wks	\$0.00	\$0.00	\$0.00	\$22,320.00	\$0.00	\$0.00	\$0
288	1.3.1.6.12.3	Materials	LLNL	M&S	2	0 wks	\$0.00	\$23,000.00	\$0.00	\$23,000.00	\$4,347.00	\$6,836.75	\$34,183
		LLNL M&S Total		M&S	0	23,000	\$0.00	\$0.00	\$0.00	\$23,000.00	\$0.00	\$0.00	\$0
289	1.3.1.6.12.4	High Energy Slit System	LLNL		0	19 wks	\$0.00	\$15,000.00	\$46,200.00	\$61,200.00	\$48,111.00	\$27,327.75	\$136,638
290	1.3.1.6.12.4		LLNL	M&S	2	0 wks	\$0.00	\$14,000.00	\$0.00	\$14,000.00	\$2,646.00	\$4,161.50	\$20,807
	1.0.1.0.12.4	LLNL M&S Total	LEINE	M&S	0	14,000	\$0.00	\$0.00	\$0.00	\$14,000.00	\$0.00	\$0.00	\$0,007
204	1.3.1.6.12.4		LLNL	ED&I	2	6 wks	\$0.00	\$0.00	\$15,120.00	\$15,120.00	\$14,817.60	\$7,484.40	\$37,422
291	1.3.1.6.12.4	·	LLINL		-		,,,,,,						
		LLNL Mechanical Engineer		ED&I	0	6 wks	\$0.00	\$0.00	\$0.00	\$15,120.00	\$0.00	\$0.00	\$0
292	1.3.1.6.12.4	Vaccum Braze	LLNL	ED&I	2	6 wks	\$0.00	\$0.00	\$15,120.00	\$15,120.00	\$14,817.60	\$7,484.40	\$37,422
		LLNL Mechanical Engineer		ED&I	0	6 wks	\$0.00	\$0.00	\$0.00	\$15,120.00	\$0.00	\$0.00	\$0
293	1.3.1.6.12.4	Slice	LLNL	B&H	2	4 wks	\$0.00	\$0.00	\$9,120.00	\$9,120.00	\$8,937.60	\$4,514.40	\$22,572
		LLNL Mech. Fab: Plating & Cleaning		B&H	0	4 wks	\$0.00	\$0.00	\$0.00	\$9,120.00	\$0.00	\$0.00	\$0
294	1.3.1.6.12.4	Mount	LLNL	B&H	2	3 wks	\$0.00	\$0.00	\$6,840.00	\$6,840.00	\$6,703.20	\$3,385.80	\$16,929
		LLNL Mech. Fab: Plating & Cleaning		B&H	0	3 wks	\$0.00	\$0.00	\$0.00	\$6,840.00	\$0.00	\$0.00	\$0
295	1.3.1.6.12.4	Mount hardware	LLNL	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$189.00	\$297.25	\$1,486
		LLNL M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0
296	1.3.1.6.13	Spatial Shape and Centroid			0	6 wks	\$0.00	\$0.00	\$12,960.00	\$12,960.00	\$12,700.80	\$6,415.20	\$32,076
297	1.3.1.6.13.1	PDR	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
298	1.3.1.6.13.2	FDR	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
299	1.3.1.6.13.3	Analysis Software	LLNL		0	6 wks	\$0.00	\$0.00	\$12,960.00	\$12,960.00	\$12,700.80	\$6,415.20	\$32,076
300	1.3.1.6.13.3	•	LLNL	ED&I	2	6 wks	\$0.00	\$0.00	\$12,960.00	\$12,960.00	\$12,700.80	\$6,415.20	\$32,076
		LLNL Physicist -Scientist		ED&I	0	6 wks	\$0.00	\$0.00	\$0.00	\$12,960.00	\$0.00	\$0.00	\$0
301	1.3.1.6.14	·	LLNL			4 wks	\$0.00	\$0.00	\$8,640.00	\$8,640.00	\$8,467.20	\$4,276.80	\$21,384
		Divergence			0		• • • • • • • • • • • • • • • • • • • •			. ,		. ,	
302	1.3.1.6.14.1	PDR	LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$
303	1.3.1.6.14.2		LLNL		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$
304	1.3.1.6.14.3	Analysis Software	LLNL		0	4 wks	\$0.00	\$0.00	\$8,640.00	\$8,640.00	\$8,467.20	\$4,276.80	\$21,384
305	1.3.1.6.14.3	Divergence extraction	LLNL	ED&I	2	4 wks	\$0.00	\$0.00	\$8,640.00	\$8,640.00	\$8,467.20	\$4,276.80	\$21,384
		LLNL Physicist -Scientist	_	ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$8,640.00	\$0.00	\$0.00	\$0

ID		Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
5306	1.3.2	X-ray end station systems			0	2,161.35 wks	\$4,075,095.56	\$6,049,801.00	\$1,660,391.76	\$11,785,288.32	\$1,510,085.52	\$4,316,236.95	\$17,611,610.7
5307	1.3.2.1	PED			0	1,609.2 wks	\$4,075,095.56	\$0.00	\$0.00	\$4,075,095.56	\$815,019.11	\$1,657,633.28	\$6,547,747.9
5308	1.3.2.1.1	PPS System			0	1,609.2 wks	\$4,075,095.56	\$0.00	\$0.00	\$4,075,095.56	\$815,019.11	\$1,657,633.28	\$6,547,747.9
5309	1.3.2.1.1.1	Control Racks	SLAC		2	5 wks	\$13,600.00	\$0.00	\$0.00	\$13,600.00	\$2,720.00	\$4,080.00	\$20,400.0
5310	1.3.2.1.1.1	engineering	SLAC	ED&I	2	3 wks	\$9,000.00	\$0.00	\$0.00	\$9,000.00	\$1,800.00	\$2,700.00	\$13,500.0
		S LAC Electrical Engineer		ED&I	0	3 wks	\$0.00	\$0.00	\$0.00	\$9,000.00	\$0.00	\$0.00	\$0.0
311	1.3.2.1.1.1	design	SLAC	ED&I	2	2 wks	\$4,600.00	\$0.00	\$0.00	\$4,600.00	\$920.00	\$1,380.00	\$6,900.0
		SLAC Mech Drafting/Design		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,600.00	\$0.00	\$0.00	\$0.0
312	1.3.2.1.1.2	HPS Control	SLAC		2	7 wks	\$18,900.00	\$0.00	\$0.00	\$18,900.00	\$3,780.00	\$5,670.00	\$28,350.0
313	1.3.2.1.1.2	engineering	SLAC	ED&I	2	4 wks	\$12,000.00	\$0.00	\$0.00	\$12,000.00	\$2,400.00	\$3,600.00	\$18,000.
		S LAC Electrical Engineer		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$12,000.00	\$0.00	\$0.00	\$0.
314	1.3.2.1.1.2	design	SLAC	ED&I	2	3 wks	\$6,900.00	\$0.00	\$0.00	\$6,900.00	\$1,380.00	\$2,070.00	\$10,350.
		SLAC Mech Drafting/Design		ED&I	0	3 wks	\$0.00	\$0.00	\$0.00	\$6,900.00	\$0.00	\$0.00	\$0.
315	1.3.2.1.1.3	HPS Fan-in	SLAC		2	3 wks	\$8,300.00	\$0.00	\$0.00	\$8,300.00	\$1,660.00	\$3,486.00	\$13,446.
316	1.3.2.1.1.3	engineering	SLAC	ED&I	3	2 wks	\$6,000.00	\$0.00	\$0.00	\$6,000.00	\$1,200.00	\$2,520.00	\$9,720.
		S LAC Electrical Engineer		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$6,000.00	\$0.00	\$0.00	\$0.
317	1.3.2.1.1.3	design	SLAC	ED&I	3	1 wk	\$2,300.00	\$0.00	\$0.00	\$2,300.00	\$460.00	\$966.00	\$3,726
		SLAC Mech Drafting/Design		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,300.00	\$0.00	\$0.00	\$0.
318	1.3.2.1.1.4	PPS Junction Box	SLAC		2	3 wks	\$8,300.00	\$0.00	\$0.00	\$8,300.00	\$1,660.00	\$2,490.00	\$12,450.
319	1.3.2.1.1.4	engineering	SLAC	ED&I	2	2 wks	\$6,000.00	\$0.00	\$0.00	\$6,000.00	\$1,200.00	\$1,800.00	\$9,000
		S LAC Electrical Engineer		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$6,000.00	\$0.00	\$0.00	\$0.
320	1.3.2.1.1.4	design	SLAC	ED&I	2	1 wk	\$2,300.00	\$0.00	\$0.00	\$2,300.00	\$460.00	\$690.00	\$3,450
		SLAC Mech Drafting/Design		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,300.00	\$0.00	\$0.00	\$0.
321	1.3.2.1.1.5	Search Reset System	SLAC		2	4 wks	\$10,600.00	\$0.00	\$0.00	\$10,600.00	\$2,120.00	\$3,180.00	\$15,900.
322	1.3.2.1.1.5	engineering	SLAC	ED&I	2	2 wks	\$6,000.00	\$0.00	\$0.00	\$6,000.00	\$1,200.00	\$1,800.00	\$9,000.
		S LAC Electrical Engineer		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$6,000.00	\$0.00	\$0.00	\$0.
323	1.3.2.1.1.5	design	SLAC	ED&I	2	2 wks	\$4,600.00	\$0.00	\$0.00	\$4,600.00	\$920.00	\$1,380.00	\$6,900.
		SLAC Mech Drafting/Design		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,600.00	\$0.00	\$0.00	\$0.
324	1.3.2.1.1.6	Burn Thru Monitor	SLAC		2	5 wks	\$13,600.00	\$0.00	\$0.00	\$13,600.00	\$2,720.00	\$4,080.00	\$20,400.
325	1.3.2.1.1.6	engineering	SLAC	ED&I	2	3 wks	\$9,000.00	\$0.00	\$0.00	\$9,000.00	\$1,800.00	\$2,700.00	\$13,500
		S LAC Electrical Engineer		ED&I	0	3 wks	\$0.00	\$0.00	\$0.00	\$9,000.00	\$0.00	\$0.00	\$0.
326	1.3.2.1.1.6	design	SLAC	ED&I	2	2 wks	\$4,600.00	\$0.00	\$0.00	\$4,600.00	\$920.00	\$1,380.00	\$6,900.
		SLAC Mech Drafting/Design		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,600.00	\$0.00	\$0.00	\$0.
327	1.3.2.1.1.7	Hutch Summary	SLAC		2	2 wks	\$5,300.00	\$0.00	\$0.00	\$5,300.00	\$1,060.00	\$1,590.00	\$7,950.
328	1.3.2.1.1.7	engineering	SLAC	ED&I	2	1 wk	\$3,000.00	\$0.00	\$0.00	\$3,000.00	\$600.00	\$900.00	\$4,500.0

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ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		S LAC Electrical Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0.0
329	1.3.2.1.1.7	design	SLAC	ED&I	2	1 wk	\$2,300.00	\$0.00	\$0.00	\$2,300.00	\$460.00	\$690.00	\$3,450.
		SLAC Mech Drafting/Design		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,300.00	\$0.00	\$0.00	\$0.
330	1.3.2.1.1.8	Pneumatic Controls	SLAC		2	2 wks	\$5,300.00	\$0.00	\$0.00	\$5,300.00	\$1,060.00	\$1,590.00	\$7,950.
331	1.3.2.1.1.8	engineering	SLAC	ED&I	2	1 wk	\$3,000.00	\$0.00	\$0.00	\$3,000.00	\$600.00	\$900.00	\$4,500.
		S LAC Electrical Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0.
332	1.3.2.1.1.8	design	SLAC	ED&I	2	1 wk	\$2,300.00	\$0.00	\$0.00	\$2,300.00	\$460.00	\$690.00	\$3,450
		SLAC Mech Drafting/Design		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,300.00	\$0.00	\$0.00	\$0.
333	1.3.2.1.1.9	MPS Systen	SLAC		0	8 wks	\$22,600.00	\$0.00	\$0.00	\$22,600.00	\$4,520.00	\$6,780.00	\$33,900.
334	1.3.2.1.1.9	Control racks	SLAC		0	8 wks	\$22,600.00	\$0.00	\$0.00	\$22,600.00	\$4,520.00	\$6,780.00	\$33,900.
335	1.3.2.1.1.9	engineering	SLAC	ED&I	2	6 wks	\$18,000.00	\$0.00	\$0.00	\$18,000.00	\$3,600.00	\$5,400.00	\$27,000.
		S LAC Electrical Engineer		ED&I	0	6 wks	\$0.00	\$0.00	\$0.00	\$18,000.00	\$0.00	\$0.00	\$0.
336	1.3.2.1.1.9	design	SLAC	ED&I	2	2 wks	\$4,600.00	\$0.00	\$0.00	\$4,600.00	\$920.00	\$1,380.00	\$6,900.
		SLAC Mech Drafting/Design		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,600.00	\$0.00	\$0.00	\$0.
337	1.3.2.1.1.10	PLC CONTROLS	SLAC		0	8 wks	\$22,600.00	\$0.00	\$0.00	\$22,600.00	\$4,520.00	\$6,780.00	\$33,900.
338	1.3.2.1.1.10	engineering	SLAC	ED&I	2	6 wks	\$18,000.00	\$0.00	\$0.00	\$18,000.00	\$3,600.00	\$5,400.00	\$27,000
		S LAC Electrical Engineer		ED&I	0	6 wks	\$0.00	\$0.00	\$0.00	\$18,000.00	\$0.00	\$0.00	\$0
339	1.3.2.1.1.10	design	SLAC	ED&I	2	2 wks	\$4,600.00	\$0.00	\$0.00	\$4,600.00	\$920.00	\$1,380.00	\$6,900
		SLAC Mech Drafting/Design		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,600.00	\$0.00	\$0.00	\$0.
340	1.3.2.1.1.11	VACUUM MONITORING	SLAC		0	7 wks	\$18,900.00	\$0.00	\$0.00	\$18,900.00	\$3,780.00	\$5,670.00	\$28,350.
341	1.3.2.1.1.11	engineering	SLAC	ED&I	2	4 wks	\$12,000.00	\$0.00	\$0.00	\$12,000.00	\$2,400.00	\$3,600.00	\$18,000
		S LAC Electrical Engineer		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$12,000.00	\$0.00	\$0.00	\$0.
342	1.3.2.1.1.11	design	SLAC	ED&I	2	3 wks	\$6,900.00	\$0.00	\$0.00	\$6,900.00	\$1,380.00	\$2,070.00	\$10,350
		SLAC Mech Drafting/Design		ED&I	0	3 wks	\$0.00	\$0.00	\$0.00	\$6,900.00	\$0.00	\$0.00	\$0.
343	1.3.2.1.1.12	PNEUMATICS	SLAC		0	3 wks	\$8,300.00	\$0.00	\$0.00	\$8,300.00	\$1,660.00	\$2,490.00	\$12,450.
344	1.3.2.1.1.12	engineering	SLAC	ED&I	2	2 wks	\$6,000.00	\$0.00	\$0.00	\$6,000.00	\$1,200.00	\$1,800.00	\$9,000
		S LAC Electrical Engineer		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$6,000.00	\$0.00	\$0.00	\$0.
345	1.3.2.1.1.12	-	SLAC	ED&I	2	1 wk	\$2,300.00	\$0.00	\$0.00	\$2,300.00	\$460.00	\$690.00	\$3,450
		SLAC Mech Drafting/Design		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,300.00	\$0.00	\$0.00	\$0.
346	1.3.2.1.1.13				0	40.4 wks	\$135,640.00	\$0.00	\$0.00	\$135,640.00	\$27,128.00	\$56,996.40	\$219,764.
347	1.3.2.1.1.13	Chamber: A3	SLAC		3	20.2 wks	\$67,820.00	\$0.00	\$0.00	\$67,820.00	\$13,564.00	\$28,567.20	\$109,951.
348	1.3.2.1.1.13		SLAC	ED&I	3	4 wks	\$13,600.00	\$0.00	\$0.00	\$13,600.00	\$2,720.00	\$5,712.00	\$22,032
J-0	1.0.2.1.1.13	SLAC Physicist -Scientist	JLAC	ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$13,600.00	\$2,720.00	\$0.00	\$22,032
349	1.3.2.1.1.13	•	81.40	ED&I	3	4 wks	\$53,760.00		\$0.00				
J49	1.3.2.1.1.13	, and the second	SLAC					\$0.00		\$53,760.00	\$10,752.00	\$22,579.20	\$87,091
		SLAC Mechanical Engineer		ED&I	0	16 wks	\$0.00	\$0.00	\$0.00	\$53,760.00	\$0.00	\$0.00	\$0.

ID 350	CWBS 1.3.2.1.1.13	Task Name design	OBS SLAC	PHASE ED&I	Risk 4	Units 0.2 wks	PED (Direct) \$460.00	M&S (Direct) \$0.00	Labor (Direct) \$0.00	Direct Cost \$460.00	Overhead Cost \$92.00	Contingency Cost \$276.00	Total Cost \$828.00
		SLAC Mech Drafting/Design		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$460.00	\$0.00	\$0.00	\$0.00
5351	1.3.2.1.1.13	Chamber: B5	SLAC		3	20.2 wks		\$0.00	\$0.00			\$28,429.20	\$109,813.20
							\$67,820.00			\$67,820.00	\$13,564.00	. ,	
5352	1.3.2.1.1.13	specification	SLAC	ED&I	3	4 wks	\$13,600.00	\$0.00	\$0.00	\$13,600.00	\$2,720.00	\$5,712.00	\$22,032.0
		SLAC Physicist -Scientist		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$13,600.00	\$0.00	\$0.00	\$0.0
5353	1.3.2.1.1.13	design	SLAC	ED&I	3	16 wks	\$53,760.00	\$0.00	\$0.00	\$53,760.00	\$10,752.00	\$22,579.20	\$87,091.2
		SLAC Mechanical Engineer		ED&I	0	16 wks	\$0.00	\$0.00	\$0.00	\$53,760.00	\$0.00	\$0.00	\$0.0
5354	1.3.2.1.1.13	design	SLAC	ED&I	2	0.2 wks	\$460.00	\$0.00	\$0.00	\$460.00	\$92.00	\$138.00	\$690.0
		SLAC Mech Drafting/Design		ED&I	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$460.00	\$0.00	\$0.00	\$0.0
355	1.3.2.1.1.14	Movable Mask Absorber			0	57 wks	\$148,420.80	\$0.00	\$0.00	\$148,420.80	\$29,684.16	\$50,229.70	\$228,334.6
5356	1.3.2.1.1.14	first item	SLAC	ED&I	3	1 wk	\$3,360.00	\$0.00	\$0.00	\$3,360.00	\$672.00	\$1,411.20	\$5,443.2
	1.3.2.1.1.14	SLAC AD: Mech/Vacuum Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$3,360.00	\$0.00	\$0.00	\$0.00
5357	1.3.2.1.1.14		SLAC	ED&I	2	6 wks	\$20,160.00	\$0.00	\$0.00	\$20,160.00	\$4,032.00	\$6,048.00	\$30,240.0
	1.3.2.1.1.14	SLAC Mechanical Engineer		ED&I	0	6 wks	\$0.00	\$0.00	\$0.00	\$20,160.00	\$0.00	\$0.00	\$0.0
5358	1.3.2.1.1.14	Design	SLAC	ED&I	3	10 wks	\$23,000.00	\$0.00	\$0.00	\$23,000.00	\$4,600.00	\$9,660.00	\$37,260.0
	1.3.2.1.1.14	SLAC Mech Drafting/Design		ED&I	0	10 wks	\$0.00	\$0.00	\$0.00	\$23,000.00	\$0.00	\$0.00	\$0.0
5359	1.3.2.1.1.14	Beryllium/Cu Fabrication	SLAC	B&H	1	3 wks	\$9,600.00	\$0.00	\$0.00	\$9,600.00	\$1,920.00	\$1,728.00	\$13,248.0
	1.3.2.1.1.14	SLAC Mech. Fab: Machine Shop		B&H	0	3 wks	\$0.00	\$0.00	\$0.00	\$9,600.00	\$0.00	\$0.00	\$0.0
5360	1.3.2.1.1.14	Bellows Spool Assy.	SLAC	B&H	3	1 wk	\$1,998.80	\$0.00	\$0.00	\$1,998.80	\$399.76	\$839.50	\$3,238.0
	1.3.2.1.1.14	SLAC Mech. Fab: Assembly Tech		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$1,998.80	\$0.00	\$0.00	\$0.0
5361	1.3.2.1.1.14		SLAC	B&H	3	1 wk	\$1,998.80	\$0.00	\$0.00	\$1,998.80	\$399.76	\$839.50	\$3,238.0
	1.3.2.1.1.14	SLAC Mech. Fab: Assembly Tech	OEAG	B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$1,998.80	\$0.00	\$0.00	\$0.0
		·											
5362	1.3.2.1.1.14	Plate/clean	SLAC	B&H	2	6 wks	\$30,000.00	\$0.00	\$0.00	\$30,000.00	\$6,000.00	\$9,000.00	\$45,000.0
	1.3.2.1.1.14	SLAC Mech. Fab: Plating & Cleaning		B&H	0	6 wks	\$0.00	\$0.00	\$0.00	\$30,000.00	\$0.00	\$0.00	\$0.00
5363	1.3.2.1.1.14	Braze/weld	SLAC	B&H	3	6 wks	\$11,992.80	\$0.00	\$0.00	\$11,992.80	\$2,398.56	\$5,036.98	\$19,428.3
	1.3.2.1.1.14	SLAC Mech. Fab: Assembly Tech		B&H	0	6 wks	\$0.00	\$0.00	\$0.00	\$11,992.80	\$0.00	\$0.00	\$0.0
5364	1.3.2.1.1.14	Vacuum assembly	SLAC	B&H	1	7 wks	\$13,991.60	\$0.00	\$0.00	\$13,991.60	\$2,798.32	\$2,518.49	\$19,308.4
	1.3.2.1.1.14	SLAC Mech. Fab: Assembly Tech		B&H	0	7 wks	\$0.00	\$0.00	\$0.00	\$13,991.60	\$0.00	\$0.00	\$0.0
5365	1.3.2.1.1.14	Inspection	SLAC	B&H	1	1 wk	\$1,774.40	\$0.00	\$0.00	\$1,774.40	\$354.88	\$319.39	\$2,448.6
	1.3.2.1.1.14	SLAC Klystron: Technician		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$1,774.40	\$0.00	\$0.00	\$0.0
5366	1.3.2.1.1.14	•	SLAC	B&H	3	2 wks	\$4,560.00	\$0.00	\$0.00	\$4,560.00	\$912.00	\$1,915.20	\$7,387.2
,,,,,,,		-	SLAC										
	1.3.2.1.1.14	SLAC Metrology:Eng.& Surveyors		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,560.00	\$0.00	\$0.00	\$0.0
5367	1.3.2.1.1.14		SLAC	B&H	3	13 wks	\$25,984.40	\$0.00	\$0.00	\$25,984.40	\$5,196.88	\$10,913.45	\$42,094.7
		SLAC Mech. Fab: Assembly Tech		B&H	0	13 wks	\$0.00	\$0.00	\$0.00	\$25,984.40	\$0.00	\$0.00	\$0.0
5368	1.3.2.1.1.15	PPS Shutter Stoppers	SLAC		0	80.5 wks	\$211,603.20	\$0.00	\$0.00	\$211,603.20	\$42,320.64	\$69,649.82	\$323,573.66

ID		Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
5369	1.3.2.1.1.15	first item	SLAC	ED&I	3	1 wk	\$3,360.00	\$0.00	\$0.00	\$3,360.00	\$672.00	\$1,411.20	\$5,443
\neg		SLAC AD: Mech/Vacuum Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$3,360.00	\$0.00	\$0.00	\$0.
370	1.3.2.1.1.15	Engineering	SLAC	ED&I	2	6 wks	\$20,160.00	\$0.00	\$0.00	\$20,160.00	\$4,032.00	\$6,048.00	\$30,240
\dashv		SLAC Mechanical Engineer		ED&I	0	6 wks	\$0.00	\$0.00	\$0.00	\$20,160.00	\$0.00	\$0.00	\$0
371	1.3.2.1.1.15	Design	SLAC	ED&I	3	12 wks	\$27,600.00	\$0.00	\$0.00	\$27,600.00	\$5,520.00	\$11,592.00	\$44,712
\dashv		SLAC Mech Drafting/Design		ED&I	0	12 wks	\$0.00	\$0.00	\$0.00	\$27,600.00	\$0.00	\$0.00	\$0
72	1.3.2.1.1.15	Brick Backet Stem Assy	SLAC	B&H	3	1.5 wks	\$2,998.20	\$0.00	\$0.00	\$2,998.20	\$599.64	\$1,259.24	\$4,85
-		SLAC Mech. Fab: Assembly Tech		B&H	0	1.5 wks	\$0.00	\$0.00	\$0.00	\$2,998.20	\$0.00	\$0.00	\$
73	1.3.2.1.1.15	Plate/clean	SLAC	B&H	2	13 wks	\$65,000.00	\$0.00	\$0.00	\$65,000.00	\$13,000.00	\$19,500.00	\$97,50
\dashv		SLAC Mech. Fab: Plating & Cleaning		B&H	0	13 wks	\$0.00	\$0.00	\$0.00	\$65,000.00	\$0.00	\$0.00	\$
374	1.3.2.1.1.15	Braze/weld	SLAC	B&H	3	13 wks	\$25,984.40	\$0.00	\$0.00	\$25,984.40	\$5,196.88	\$10,913.45	\$42,09
\dashv		SLAC Mech. Fab: Assembly Tech		B&H	0	13 wks	\$0.00	\$0.00	\$0.00	\$25,984.40	\$0.00	\$0.00	\$6
75	1.3.2.1.1.15	Support Fab & Machining	SLAC	B&H	3	13 wks	\$25,984.40	\$0.00	\$0.00	\$25,984.40	\$5,196.88	\$10,913.45	\$42,09
-		SLAC Mech. Fab: Assembly Tech		B&H	0	13 wks	\$0.00	\$0.00	\$0.00	\$25,984.40	\$0.00	\$0.00	\$
76	1.3.2.1.1.15	Air Actuator assy	SLAC	B&H	3	1.5 wks	\$2,998.20	\$0.00	\$0.00	\$2,998.20	\$599.64	\$1,259.24	\$4,85
\dashv		SLAC Mech. Fab: Assembly Tech		B&H	0	1.5 wks	\$0.00	\$0.00	\$0.00	\$2,998.20	\$0.00	\$0.00	\$
77	1.3.2.1.1.15	Vacuum assembly	SLAC	B&H	1	13 wks	\$25,984.40	\$0.00	\$0.00	\$25,984.40	\$5,196.88	\$4,677.19	\$35,85
\dashv		SLAC Mech. Fab: Assembly Tech		B&H	0	13 wks	\$0.00	\$0.00	\$0.00	\$25,984.40	\$0.00	\$0.00	\$
78	1.3.2.1.1.15	Inspection	SLAC	B&H	1	6.5 wks	\$11,533.60	\$0.00	\$0.00	\$11,533.60	\$2,306.72	\$2,076.05	\$15,91
\dashv		SLAC Klystron: Technician		B&H	0	6.5 wks	\$0.00	\$0.00	\$0.00	\$11,533.60	\$0.00	\$0.00	\$
379	1.3.2.1.1.16	PPS Final Beam Stop	SLAC		0	2.3 wks	\$5,934.76	\$0.00	\$0.00	\$5,934.76	\$1,186.95	\$2,352.71	\$9,47
80	1.3.2.1.1.16	first item	SLAC	ED&I	3	0.4 wks	\$1,344.00	\$0.00	\$0.00	\$1,344.00	\$268.80	\$564.48	\$2,17
-		SLAC AD: Mech/Vacuum Engineer		ED&I	0	0.4 wks	\$0.00	\$0.00	\$0.00	\$1,344.00	\$0.00	\$0.00	\$
81	1.3.2.1.1.16	Engineering	SLAC	B&H	2	0.2 wks	\$456.00	\$0.00	\$0.00	\$456.00	\$91.20	\$136.80	\$68
\dashv		SLAC Metrology:Eng.& Surveyors		B&H	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$456.00	\$0.00	\$0.00	\$
82	1.3.2.1.1.16	Design	SLAC	ED&I	3	1 wk	\$2,300.00	\$0.00	\$0.00	\$2,300.00	\$460.00	\$966.00	\$3,72
_		SLAC Mech Drafting/Design		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,300.00	\$0.00	\$0.00	\$
83	1.3.2.1.1.16	Cooled Cu Plug	SLAC	B&H	3	0.4 wks	\$1,280.00	\$0.00	\$0.00	\$1,280.00	\$256.00	\$537.60	\$2,07
-		SLAC Mech. Fab: Machine Shop		B&H	0	0.4 wks	\$0.00	\$0.00	\$0.00	\$1,280.00	\$0.00	\$0.00	\$
84	1.3.2.1.1.16	Inspection	SLAC	B&H	1	0.2 wks	\$354.88	\$0.00	\$0.00	\$354.88	\$70.98	\$63.88	\$48
_		SLAC Klystron: Technician		B&H	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$354.88	\$0.00	\$0.00	\$
85	1.3.2.1.1.16	Installation	SLAC	B&H	3	0.1 wks	\$199.88	\$0.00	\$0.00	\$199.88	\$39.98	\$83.95	\$32
\dashv		SLAC Mech. Fab: Assembly Tech		B&H	0	0.1 wks	\$0.00	\$0.00	\$0.00	\$199.88	\$0.00	\$0.00	\$
886	1.3.2.1.1.17	Spectrometers	SLAC		0	18 wks	\$47,920.00	\$0.00	\$0.00	\$47,920.00	\$9,584.00	\$20,126.40	\$77,63
387	1.3.2.1.1.17	Specification	SLAC	ED&I	3	4 wks	\$13,600.00	\$0.00	\$0.00	\$13,600.00	\$2,720.00	\$5,712.00	\$22,03

ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		SLAC Physicist -Scientist		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$13,600.00	\$0.00	\$0.00	\$0.0
388	1.3.2.1.1.17	Design	SLAC	ED&I	3	2 wks	\$6,720.00	\$0.00	\$0.00	\$6,720.00	\$1,344.00	\$2,822.40	\$10,886.4
		SLAC Mechanical Engineer		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$6,720.00	\$0.00	\$0.00	\$0.0
389	1.3.2.1.1.17	Design	SLAC	ED&I	3	12 wks	\$27,600.00	\$0.00	\$0.00	\$27,600.00	\$5,520.00	\$11,592.00	\$44,712.0
		SLAC Mech Drafting/Design		ED&I	0	12 wks	\$0.00	\$0.00	\$0.00	\$27,600.00	\$0.00	\$0.00	\$0.0
390	1.3.2.1.1.18	Chamber support tables			0	14 wks	\$38,720.00	\$0.00	\$0.00	\$38,720.00	\$7,744.00	\$16,262.40	\$62,726.4
391	1.3.2.1.1.18	Specification	SLAC	ED&I	3	4 wks	\$13,600.00	\$0.00	\$0.00	\$13,600.00	\$2,720.00	\$5,712.00	\$22,032.
		SLAC Physicist -Scientist		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$13,600.00	\$0.00	\$0.00	\$0.
392	1.3.2.1.1.18	Design	SLAC	ED&I	3	2 wks	\$6,720.00	\$0.00	\$0.00	\$6,720.00	\$1,344.00	\$2,822.40	\$10,886.
		SLAC Mechanical Engineer		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$6,720.00	\$0.00	\$0.00	\$0.
393	1.3.2.1.1.18	Design	SLAC	ED&I	3	8 wks	\$18,400.00	\$0.00	\$0.00	\$18,400.00	\$3,680.00	\$7,728.00	\$29,808.0
		SLAC Mech Drafting/Design		ED&I	0	8 wks	\$0.00	\$0.00	\$0.00	\$18,400.00	\$0.00	\$0.00	\$0.
394	1.3.2.1.1.19	Vacuum Components			0	12 wks	\$33,960.00	\$0.00	\$0.00	\$33,960.00	\$6,792.00	\$14,263.20	\$55,015.
395	1.3.2.1.1.19	Valves			0	6 wks	\$18,040.00	\$0.00	\$0.00	\$18,040.00	\$3,608.00	\$7,576.80	\$29,224.
396	1.3.2.1.1.19	Specification	SLAC	ED&I	3	4 wks	\$13,440.00	\$0.00	\$0.00	\$13,440.00	\$2,688.00	\$5,644.80	\$21,772.
		SLAC AD: Mech/Vacuum Engineer		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$13,440.00	\$0.00	\$0.00	\$0.
397	1.3.2.1.1.19	Specification	SLAC	ED&I	3	2 wks	\$4,600.00	\$0.00	\$0.00	\$4,600.00	\$920.00	\$1,932.00	\$7,452
		SLAC Mech Drafting/Design		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,600.00	\$0.00	\$0.00	\$0.
398	1.3.2.1.1.19	Hardware			3	1.5 wks	\$3,980.00	\$0.00	\$0.00	\$3,980.00	\$796.00	\$1,671.60	\$6,447.0
399	1.3.2.1.1.19	Specification	SLAC	ED&I	3	0.5 wks	\$1,680.00	\$0.00	\$0.00	\$1,680.00	\$336.00	\$705.60	\$2,721.
		SLAC AD: Mech/Vacuum Engineer		ED&I	0	0.5 wks	\$0.00	\$0.00	\$0.00	\$1,680.00	\$0.00	\$0.00	\$0.
400	1.3.2.1.1.19	Specification	SLAC	ED&I	3	1 wk	\$2,300.00	\$0.00	\$0.00	\$2,300.00	\$460.00	\$966.00	\$3,726.
		SLAC Mech Drafting/Design		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,300.00	\$0.00	\$0.00	\$0.
5401	1.3.2.1.1.19	lon Pump System			3	1.5 wks	\$3,980.00	\$0.00	\$0.00	\$3,980.00	\$796.00	\$1,671.60	\$6,447.6
402	1.3.2.1.1.19	Specification	SLAC	ED&I	3	0.5 wks	\$1,680.00	\$0.00	\$0.00	\$1,680.00	\$336.00	\$705.60	\$2,721.
		SLAC AD: Mech/Vacuum Engineer		ED&I	0	0.5 wks	\$0.00	\$0.00	\$0.00	\$1,680.00	\$0.00	\$0.00	\$0.
403	1.3.2.1.1.19	Specification	SLAC	ED&I	3	1 wk	\$2,300.00	\$0.00	\$0.00	\$2,300.00	\$460.00	\$966.00	\$3,726.
		SLAC Mech Drafting/Design		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,300.00	\$0.00	\$0.00	\$0.
404	1.3.2.1.1.19	Turbo Pump System			3	1.5 wks	\$3,980.00	\$0.00	\$0.00	\$3,980.00	\$796.00	\$1,671.60	\$6,447.
405	1.3.2.1.1.19	Specification	SLAC	ED&I	3	0.5 wks	\$1,680.00	\$0.00	\$0.00	\$1,680.00	\$336.00	\$705.60	\$2,721
		SLAC AD: Mech/Vacuum Engineer		ED&I	0	0.5 wks	\$0.00	\$0.00	\$0.00	\$1,680.00	\$0.00	\$0.00	\$0.
406	1.3.2.1.1.19		SLAC	ED&I	3	1 wk	\$2,300.00	\$0.00	\$0.00	\$2,300.00	\$460.00	\$966.00	\$3,726
		SLAC Mech Drafting/Design		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,300.00	\$0.00	\$0.00	\$0.
407	1.3.2.1.1.19	Guage System			3	1.5 wks	\$3,980.00	\$0.00	\$0.00	\$3,980.00	\$796.00	\$1,671.60	\$6,447.
408	1.3.2.1.1.19		SLAC	ED&I	3	0.5 wks	\$1,680.00	\$0.00	\$0.00	\$1,680.00	\$336.00	\$705.60	\$2,721.

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ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		SLAC AD: Mech/Vacuum Engineer		ED&I	0	0.5 wks	\$0.00	\$0.00	\$0.00	\$1,680.00	\$0.00	\$0.00	\$0.0
409	1.3.2.1.1.19	Specification	SLAC	ED&I	3	1 wk	\$2,300.00	\$0.00	\$0.00	\$2,300.00	\$460.00	\$966.00	\$3,726.0
		SLAC Mech Drafting/Design		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,300.00	\$0.00	\$0.00	\$0.0
410	1.3.2.1.1.20	Experimental chamber			0	48 wks	\$127,680.00	\$0.00	\$0.00	\$127,680.00	\$25,536.00	\$53,625.60	\$206,841.6
411	1.3.2.1.1.20	Chamber: A2			0	24 wks	\$63,840.00	\$0.00	\$0.00	\$63,840.00	\$12,768.00	\$26,812.80	\$103,420.8
412	1.3.2.1.1.20	Specification	SLAC	ED&I	3	4 wks	\$13,600.00	\$0.00	\$0.00	\$13,600.00	\$2,720.00	\$5,712.00	\$22,032.
		SLAC Physicist -Scientist		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$13,600.00	\$0.00	\$0.00	\$0.
413	1.3.2.1.1.20	Design	SLAC	ED&I	3	4 wks	\$13,440.00	\$0.00	\$0.00	\$13,440.00	\$2,688.00	\$5,644.80	\$21,772.
		SLAC Mechanical Engineer		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$13,440.00	\$0.00	\$0.00	\$0.
414	1.3.2.1.1.20	Design	SLAC	ED&I	3	16 wks	\$36,800.00	\$0.00	\$0.00	\$36,800.00	\$7,360.00	\$15,456.00	\$59,616.
		SLAC Mech Drafting/Design		ED&I	0	16 wks	\$0.00	\$0.00	\$0.00	\$36,800.00	\$0.00	\$0.00	\$0.
415	1.3.2.1.1.20	Chamber: B4			0	24 wks	\$63,840.00	\$0.00	\$0.00	\$63,840.00	\$12,768.00	\$26,812.80	\$103,420.
416	1.3.2.1.1.20	Specification	SLAC	ED&I	3	4 wks	\$13,600.00	\$0.00	\$0.00	\$13,600.00	\$2,720.00	\$5,712.00	\$22,032.
		SLAC Physicist -Scientist		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$13,600.00	\$0.00	\$0.00	\$0.
417	1.3.2.1.1.20	Design	SLAC	ED&I	3	4 wks	\$13,440.00	\$0.00	\$0.00	\$13,440.00	\$2,688.00	\$5,644.80	\$21,772
		SLAC Mechanical Engineer		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$13,440.00	\$0.00	\$0.00	\$0
418	1.3.2.1.1.20	Design	SLAC	ED&I	3	16 wks	\$36,800.00	\$0.00	\$0.00	\$36,800.00	\$7,360.00	\$15,456.00	\$59,616
		SLAC Mech Drafting/Design		ED&I	0	16 wks	\$0.00	\$0.00	\$0.00	\$36,800.00	\$0.00	\$0.00	\$0.
419	1.3.2.1.1.21	Controls			0	599 wks	\$1,610,436.80	\$0.00	\$0.00	\$1,610,436.80	\$322,087.36	\$676,383.46	\$2,608,907.
420	1.3.2.1.1.21	Network			0	338 wks	\$747,884.80	\$0.00	\$0.00	\$747,884.80	\$149,576.96	\$314,111.62	\$1,211,573.
421	1.3.2.1.1.21	Engineering	SLAC	ED&I	3	130 wks	\$383,136.00	\$0.00	\$0.00	\$383,136.00	\$76,627.20	\$160,917.12	\$620,680
		SLAC Controls: Engineer		ED&I	0	130 wks	\$0.00	\$0.00	\$0.00	\$383,136.00	\$0.00	\$0.00	\$0.
422	1.3.2.1.1.21	-	SLAC	B&H	3	208 wks	\$364,748.80	\$0.00	\$0.00	\$364,748.80	\$72,949.76	\$153,194.50	\$590,893
		SLAC Controls: Technician		B&H	0	208 wks	\$0.00	\$0.00	\$0.00	\$364,748.80	\$0.00	\$0.00	\$0.
423	1.3.2.1.1.21	Reserved			0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
424	1.3.2.1.1.21	PC Administrator	SLAC	ED&I	3	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
424	1.3.2.1.1.21	SLAC Controls: Engineer	SLAC	ED&I	0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
425	1.3.2.1.1.21	-	SLAC	B&H			\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
425	1.3.2.1.1.21		SLAC		3	0 wks						.	
		SLAC Controls: Technician		B&H	0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
426	1.3.2.1.1.21	Beamline controls			0	261 wks	\$862,552.00	\$0.00	\$0.00	\$862,552.00	\$172,510.40	\$362,271.84	\$1,397,334
427	1.3.2.1.1.21	-	SLAC	ED&I	3	34 wks	\$163,200.00	\$0.00	\$0.00	\$163,200.00	\$32,640.00	\$68,544.00	\$264,384
		SLAC Project Management		ED&I	0	34 wks	\$0.00	\$0.00	\$0.00	\$163,200.00	\$0.00	\$0.00	\$0.
428	1.3.2.1.1.21	''	SLAC	ED&I	3	67 wks	\$227,800.00	\$0.00	\$0.00	\$227,800.00	\$45,560.00	\$95,676.00	\$369,036
		SLAC Physicist -Scientist		ED&I	0	67 wks	\$0.00	\$0.00	\$0.00	\$227,800.00	\$0.00	\$0.00	\$0.
429	1.3.2.1.1.21	Software Development	SLAC	ED&I	3	160 wks	\$471,552.00	\$0.00	\$0.00	\$471,552.00	\$94,310.40	\$198,051.84	\$763,914

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ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		SLAC Controls: Engineer		ED&I	0	160 wks	\$0.00	\$0.00	\$0.00	\$471,552.00	\$0.00	\$0.00	\$0.0
5430	1.3.2.1.1.22	Detectors			0	681 wks	\$1,558,480.00	\$0.00	\$0.00	\$1,558,480.00	\$311,696.00	\$649,857.60	\$2,520,033.6
5431	1.3.2.1.1.22	Beam Imaging	SLAC		0	16 wks	\$43,320.00	\$0.00	\$0.00	\$43,320.00	\$8,664.00	\$16,562.40	\$68,546.4
5432	1.3.2.1.1.22	Scientist	SLAC	ED&I	2	4 wks	\$13,600.00	\$0.00	\$0.00	\$13,600.00	\$2,720.00	\$4,080.00	\$20,400.0
		SLAC Physicist -Scientist		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$13,600.00	\$0.00	\$0.00	\$0.0
5433	1.3.2.1.1.22	Engineering	SLAC	ED&I	3	2 wks	\$6,720.00	\$0.00	\$0.00	\$6,720.00	\$1,344.00	\$2,822.40	\$10,886.4
		SLAC Mechanical Engineer		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$6,720.00	\$0.00	\$0.00	\$0.0
5434	1.3.2.1.1.22	Design	SLAC	ED&I	3	10 wks	\$23,000.00	\$0.00	\$0.00	\$23,000.00	\$4,600.00	\$9,660.00	\$37,260.0
		SLAC Mech Drafting/Design		ED&I	0	10 wks	\$0.00	\$0.00	\$0.00	\$23,000.00	\$0.00	\$0.00	\$0.0
5435	1.3.2.1.1.22	Intensity	SLAC		0	8 wks	\$25,600.00	\$0.00	\$0.00	\$25,600.00	\$5,120.00	\$7,680.00	\$38,400.0
5436	1.3.2.1.1.22	Scientist	SLAC	ED&I	2	4 wks	\$13,600.00	\$0.00	\$0.00	\$13,600.00	\$2,720.00	\$4,080.00	\$20,400.0
		SLAC Physicist -Scientist		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$13,600.00	\$0.00	\$0.00	\$0.0
5437	1.3.2.1.1.22	Engineering	SLAC	ED&I	2	4 wks	\$12,000.00	\$0.00	\$0.00	\$12,000.00	\$2,400.00	\$3,600.00	\$18,000.0
		S LAC Electrical Engineer		ED&I	0	4 wks	\$0.00	\$0.00	\$0.00	\$12,000.00	\$0.00	\$0.00	\$0.0
5438	1.3.2.1.1.22	Streak Camera	SLAC		0	33 wks	\$100,120.00	\$0.00	\$0.00	\$100,120.00	\$20,024.00	\$42,050.40	\$162,194.4
5439	1.3.2.1.1.22	Scientist	SLAC	ED&I	3	16 wks	\$54,400.00	\$0.00	\$0.00	\$54,400.00	\$10,880.00	\$22,848.00	\$88,128.0
		SLAC Physicist -Scientist		ED&I	0	16 wks	\$0.00	\$0.00	\$0.00	\$54,400.00	\$0.00	\$0.00	\$0.0
5440	1.3.2.1.1.22	•	SLAC	ED&I	3	2 wks	\$6,720.00	\$0.00	\$0.00	\$6,720.00	\$1,344.00	\$2,822.40	\$10,886.4
		SLAC Mechanical Engineer		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$6,720.00	\$0.00	\$0.00	\$0.0
5441	1.3.2.1.1.22	-	SLAC	ED&I	3	10 wks	\$23,000.00	\$0.00	\$0.00	\$23,000.00	\$4,600.00	\$9,660.00	\$37,260.0
3441	1.3.2.1.1.22	SLAC Mech Drafting/Design	SLAC	ED&I	0	10 wks	\$0.00	\$0.00	\$0.00	\$23,000.00	\$0.00	\$0.00	\$0.0
5442	1.3.2.1.1.22		SLAC	B&H	3	5 wks	\$16,000.00	\$0.00	\$0.00	\$16,000.00	\$3,200.00	\$6.720.00	\$25.920.0
5442	1.3.2.1.1.22		SLAC				, ,,,,,,,		****			**,	, .,.
		SLAC Mech. Fab: Machine Shop		B&H	0	5 wks	\$0.00	\$0.00	\$0.00	\$16,000.00	\$0.00	\$0.00	\$0.0
5443	1.3.2.1.1.22	2-D X-Ray Detector	SLAC		0	624 wks	\$1,389,440.00	\$0.00	\$0.00	\$1,389,440.00	\$277,888.00	\$583,564.80	\$2,250,892.8
5444	1.3.2.1.1.22	Scientist	SLAC	ED&I	3	208 wks	\$707,200.00	\$0.00	\$0.00	\$707,200.00	\$141,440.00	\$297,024.00	\$1,145,664.0
		SLAC Physicist -Scientist		ED&I	0	208 wks	\$0.00	\$0.00	\$0.00	\$707,200.00	\$0.00	\$0.00	\$0.0
5445	1.3.2.1.1.22	Postdocs	SLAC	ED&I	3	416 wks	\$682,240.00	\$0.00	\$0.00	\$682,240.00	\$136,448.00	\$286,540.80	\$1,105,228.8
		SLAC Physicist - Post Doc		ED&I	0	416 wks	\$0.00	\$0.00	\$0.00	\$682,240.00	\$0.00	\$0.00	\$0.0
5446	1.3.2.2	Mechanical			0	150.4 wks	\$0.00	\$373,400.00	\$451,557.76	\$824,957.76	\$112,715.55	\$264,343.92	\$1,202,017.2
5447	1.3.2.2.1	PPS Mechanical			0	95.4 wks	\$0.00	\$183,400.00	\$209,967.36	\$393,367.36	\$52,997.47	\$115,281.95	\$561,646.7
5448	1.3.2.2.1.1	Movable Mask Absorber			0	21.5 wks	\$0.00	\$48,000.00	\$47,807.60	\$95,807.60	\$12,441.52	\$28,350.33	\$136,599.4
5449	1.3.2.2.1.1	Beryllium	SLAC	M&S	1	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$318.00	\$2,438.0
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.0
5450	1.3.2.2.1.1	Beryllium/Cu Fabrication	SLAC	M&S	1	0 wks	\$0.00	\$8,000.00	\$0.00	\$8,000.00	\$480.00	\$1,272.00	\$9,752.0
		SLAC M&S Total		M&S	0	8,000	\$0.00	\$0.00	\$0.00	\$8,000.00	\$0.00	\$0.00	\$0.0

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ID		Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
5451	1.3.2.2.1.1	Tank Fab and Machining	SLAC	M&S	1	0 wks	\$0.00	\$33,000.00	\$0.00	\$33,000.00	\$1,980.00	\$5,247.00	\$40,227.0
		SLAC M&S Total		M&S	0	33,000	\$0.00	\$0.00	\$0.00	\$33,000.00	\$0.00	\$0.00	\$0.0
452	1.3.2.2.1.1	Flanges & transitions	SLAC	M&S	3	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$371.00	\$1,431.0
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.0
453	1.3.2.2.1.1	Bellows Spool parts	SLAC	M&S	3	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$742.00	\$2,862.0
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.0
454	1.3.2.2.1.1	Bellows Spool Assy	SLAC	B&H	3	1.5 wks	\$0.00	\$0.00	\$3,420.00	\$3,420.00	\$684.00	\$1,436.40	\$5,540.4
		SLACL T&M Crafts - Welder		B&H	0	1.5 wks	\$0.00	\$0.00	\$0.00	\$3,420.00	\$0.00	\$0.00	\$0.0
455	1.3.2.2.1.1	Actuators parts	SLAC	M&S	3	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$371.00	\$1,431.0
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.0
456	1.3.2.2.1.1	Actuator assy	SLAC		0	1.5 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
		SLAC PCD:Inst-Cabling-Elec Fab			0	1.5 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
457	1.3.2.2.1.1	Misc Hardware	SLAC	M&S	3	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$371.00	\$1,431.0
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.0
458	1.3.2.2.1.1	Plate/clean	SLAC	B&H	3	4.5 wks	\$0.00	\$0.00	\$14,400.00	\$14,400.00	\$2,880.00	\$6,048.00	\$23,328.0
+56	1.3.2.2.1.1	SLAC Mech. Fab: Machine Shop	SLAC	B&H	0	4.5 wks	\$0.00	\$0.00	\$0.00	\$14,400.00	\$0.00	\$0.00	\$23,326.
		·											
459	1.3.2.2.1.1	Braze/weld	SLAC	B&H	3	5 wks	\$0.00	\$0.00	\$9,994.00	\$9,994.00	\$1,998.80	\$4,197.48	\$16,190.
		SLAC Mech. Fab: Assembly Tech		B&H	0	5 wks	\$0.00	\$0.00	\$0.00	\$9,994.00	\$0.00	\$0.00	\$0.0
460	1.3.2.2.1.1	Support Fab & Machining	SLAC	B&H	3	1 wk	\$0.00	\$0.00	\$2,280.00	\$2,280.00	\$456.00	\$957.60	\$3,693.
		SLACL T&M Crafts - Welder		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,280.00	\$0.00	\$0.00	\$0.
461	1.3.2.2.1.1	Vacuum assembly	SLAC	B&H	1	1 wk	\$0.00	\$0.00	\$1,753.60	\$1,753.60	\$350.72	\$315.65	\$2,419.
		SLAC PCD:Technician		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$1,753.60	\$0.00	\$0.00	\$0.
462	1.3.2.2.1.1	Alignment	SLAC	B&H	3	6 wks	\$0.00	\$0.00	\$13,680.00	\$13,680.00	\$2,736.00	\$5,745.60	\$22,161.
		SLAC Metrology:Eng.& Surveyors		B&H	0	6 wks	\$0.00	\$0.00	\$0.00	\$13,680.00	\$0.00	\$0.00	\$0.0
463	1.3.2.2.1.1	Installation	SLAC	B&H	3	1 wk	\$0.00	\$0.00	\$2,280.00	\$2,280.00	\$456.00	\$957.60	\$3,693.0
		SLACL T&M Crafts - Welder		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,280.00	\$0.00	\$0.00	\$0.0
464	1.3.2.2.1.2	PPS Shutter Stoppers	SLAC		0	71 wks	\$0.00	\$133,000.00	\$158,076.00	\$291,076.00	\$39,595.20	\$84,952.76	\$415,623.9
465	1.3.2.2.1.2	Hvy Met 6500cc3 Brick sets	SLAC	M&S	1	0 wks	\$0.00	\$12,000.00	\$0.00	\$12,000.00	\$720.00	\$1,908.00	\$14,628.
		SLAC M&S Total		M&S	0	12,000	\$0.00	\$0.00	\$0.00	\$12,000.00	\$0.00	\$0.00	\$0.0
466	1.3.2.2.1.2	Tank Fab and Machining	SLAC	M&S	1	0 wks	\$0.00	\$106,500.00	\$0.00	\$106,500.00	\$6,390.00	\$16,933.50	\$129,823.
		SLAC M&S Total		M&S	0	106,500	\$0.00	\$0.00	\$0.00	\$106,500.00	\$0.00	\$0.00	\$0.
167	1.3.2.2.1.2		SLAC		3	1 wk	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
.57	1.0.2.2.1.2	SLAC PCD:Inst-Cabling-Elec Fab	05.0		0	1 wk	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
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468	1.3.2.2.1.2		SLAC	M&S	3	0 wks	\$0.00	\$4,000.00	\$0.00	\$4,000.00	\$240.00	\$1,484.00	\$5,724.
		SLAC M&S Total		M&S	0	4,000	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$0.

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ID		Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
469	1.3.2.2.1.2	Misc Hardware	SLAC	M&S	3	0 wks	\$0.00	\$5,500.00	\$0.00	\$5,500.00	\$330.00	\$2,040.50	\$7,870
		SLAC M&S Total		M&S	0	5,500	\$0.00	\$0.00	\$0.00	\$5,500.00	\$0.00	\$0.00	\$0.
70	1.3.2.2.1.2	Plate/clean	SLAC	B&H	2	12 wks	\$0.00	\$0.00	\$38,400.00	\$38,400.00	\$7,680.00	\$11,520.00	\$57,600
		SLAC Mech. Fab: Machine Shop		B&H	0	12 wks	\$0.00	\$0.00	\$0.00	\$38,400.00	\$0.00	\$0.00	\$0
71	1.3.2.2.1.2	Braze/weld	SLAC	B&H	3	10 wks	\$0.00	\$0.00	\$19,988.00	\$19,988.00	\$3,997.60	\$8,394.96	\$32,380
_		SLAC Mech. Fab: Assembly Tech		B&H	0	10 wks	\$0.00	\$0.00	\$0.00	\$19,988.00	\$0.00	\$0.00	\$0
72	1.3.2.2.1.2	Support Fab & Machining	SLAC	B&H	3	2.5 wks	\$0.00	\$0.00	\$5,700.00	\$5,700.00	\$1,140.00	\$2,394.00	\$9,23
_		SLACL T&M Crafts - Welder		B&H	0	2.5 wks	\$0.00	\$0.00	\$0.00	\$5,700.00	\$0.00	\$0.00	\$
73	1.3.2.2.1.2	Support Fab & Machining	SLAC	M&S	3	0 wks	\$0.00	\$2,500.00	\$0.00	\$2,500.00	\$150.00	\$927.50	\$3,57
		SLAC M&S Total		M&S	0	2,500	\$0.00	\$0.00	\$0.00	\$2,500.00	\$0.00	\$0.00	\$
74	1.3.2.2.1.2	Air Cylinder parts	SLAC	M&S	3	0 wks	\$0.00	\$2,500.00	\$0.00	\$2,500.00	\$150.00	\$927.50	\$3,57
_		SLAC M&S Total		M&S	0	2,500	\$0.00	\$0.00	\$0.00	\$2,500.00	\$0.00	\$0.00	\$
75	1.3.2.2.1.2		SLAC	B&H	3	4 wks	\$0.00	\$0.00	\$7,995.20	\$7,995.20	\$1,599.04	\$3,357.98	\$12,95
		SLAC Mech. Fab: Assembly Tech		B&H	0	4 wks	\$0.00	\$0.00	\$0.00	\$7,995.20	\$0.00	\$0.00	\$
76	1.3.2.2.1.2	,	SLAC	B&H		2.5 wks	\$0.00	\$0.00	\$4,384.00	\$4,384.00	\$876.80	\$789.12	\$6,04
76	1.3.2.2.1.2	·	SLAC	B&H	'								
		SLAC PCD:Technician			0	2.5 wks	\$0.00	\$0.00	\$0.00	\$4,384.00	\$0.00	\$0.00	9
77	1.3.2.2.1.2	ř	SLAC	B&H	3	13 wks	\$0.00	\$0.00	\$29,640.00	\$29,640.00	\$5,928.00		\$48,01
		SLAC Metrology:Eng.& Surveyors		B&H	0	13 wks	\$0.00	\$0.00	\$0.00	\$29,640.00	\$0.00	\$0.00	\$
78	1.3.2.2.1.2	Installation	SLAC	B&H	3	26 wks	\$0.00	\$0.00	\$51,968.80	\$51,968.80	\$10,393.76	\$21,826.90	\$84,18
		SLAC Mech. Fab: Assembly Tech		B&H	0	26 wks	\$0.00	\$0.00	\$0.00	\$51,968.80	\$0.00	\$0.00	\$
79	1.3.2.2.1.3	PPS Final Beam Stop	SLAC		0	2.9 wks	\$0.00	\$2,400.00	\$4,083.76	\$6,483.76	\$960.75	\$1,978.86	\$9,42
80	1.3.2.2.1.3	first item	SLAC	M&S	3	0 wks	\$0.00	\$200.00	\$0.00	\$200.00	\$12.00	\$74.20	\$28
		SLAC M&S Total		M&S	0	200	\$0.00	\$0.00	\$0.00	\$200.00	\$0.00	\$0.00	\$
81	1.3.2.2.1.3	Design	SLAC	B&H	2	2.2 wks	\$0.00	\$0.00	\$2,816.00	\$2,816.00	\$563.20	\$844.80	\$4,22
		SLAC Site Engineering: Labor		B&H	0	2.2 wks	\$0.00	\$0.00	\$0.00	\$2,816.00	\$0.00	\$0.00	\$
82	1.3.2.2.1.3	Lead External Bricks	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,21
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$
83	1.3.2.2.1.3	Cooled Cu Plug	SLAC		3	0.2 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$
_		SLAC PCD:Inst-Cabling-Elec Fab			0	0.2 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$
84	1.3.2.2.1.3	Flanges & transitions	SLAC	M&S	3	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$371.00	\$1,43
_		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	9
35	1.3.2.2.1.3		SLAC	M&S	3	0 wks	\$0.00	\$200.00	\$0.00	\$200.00	\$12.00	\$74.20	\$28
	1.0.2.2.1.0	SLAC M&S Total	02.0	M&S	0	200	\$0.00	\$0.00	\$0.00	\$200.00	\$0.00	\$0.00	920
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86	1.3.2.2.1.3		SLAC	B&H	2	0.2 wks	\$0.00	\$0.00	\$640.00	\$640.00	\$128.00	\$192.00	\$96
		SLAC Mech. Fab: Machine Shop		B&H	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$640.00	\$0.00	\$0.00	\$

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ID		Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
5487	1.3.2.2.1.3	Braze/weld	SLAC	B&H	3	0.2 wks	\$0.00	\$0.00	\$399.76	\$399.76	\$79.95	\$167.90	\$647.61
		SLAC Mech. Fab: Assembly Tech		B&H	0	0.2 wks	\$0.00	\$0.00	\$0.00	\$399.76	\$0.00	\$0.00	\$0.00
5488	1.3.2.2.1.3	Support Fab & Machining	SLAC	B&H	3	0.1 wks	\$0.00	\$0.00	\$228.00	\$228.00	\$45.60	\$95.76	\$369.36
		SLACL T&M Crafts - Welder		B&H	0	0.1 wks	\$0.00	\$0.00	\$0.00	\$228.00	\$0.00	\$0.00	\$0.00
5489	1.3.2.2.2	Endstation mechanical			0	55 wks	\$0.00	\$190,000.00	\$241,590.40	\$431,590.40	\$59,718.08	\$149,061.97	\$640,370.45
5490	1.3.2.2.2.1	Spectrometers	SLAC		0	5 wks	\$0.00	\$164,000.00	\$9,994.00	\$173,994.00	\$11,838.80	\$47,657.48	\$233,490.28
5491	1.3.2.2.2.1	2-axis spectrometer	SLAC	M&S	2	0 wks	\$0.00	\$164,000.00	\$0.00	\$164,000.00	\$9,840.00	\$43,460.00	\$217,300.00
		SLAC M&S Total		M&S	0	164,000	\$0.00	\$0.00	\$0.00	\$164,000.00	\$0.00	\$0.00	\$0.00
5492	1.3.2.2.2.1	linspection	SLAC	B&H	3	2 wks	\$0.00	\$0.00	\$3,997.60	\$3,997.60	\$799.52	\$1,678.99	\$6,476.11
		SLAC Mech. Fab: Assembly Tech		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$3,997.60	\$0.00	\$0.00	\$0.00
5493	1.3.2.2.2.1	Assembly	SLAC	B&H	3	3 wks	\$0.00	\$0.00	\$5,996.40	\$5,996.40	\$1,199.28	\$2,518.49	\$9,714.17
		SLAC Mech. Fab: Assembly Tech		B&H	0	3 wks	\$0.00	\$0.00	\$0.00	\$5,996.40	\$0.00	\$0.00	\$0.00
5494	1.3.2.2.2.2	Chamber support tables			0	15 wks	\$0.00	\$26,000.00	\$63,596.40	\$89,596.40	\$14,279.28	\$30,844.49	\$134,720.17
5495	1.3.2.2.2.2	Optical table 4x8x12"	SLAC	M&S	1	0 wks	\$0.00	\$12,000.00	\$0.00	\$12,000.00	\$720.00	\$1,908.00	\$14,628.00
		SLAC M&S Total		M&S	0	12,000	\$0.00	\$0.00	\$0.00	\$12,000.00	\$0.00	\$0.00	\$0.00
5496	1.3.2.2.2.2	Isolator legs	SLAC	M&S	1	0 wks	\$0.00	\$7,000.00	\$0.00	\$7,000.00	\$420.00	\$1,113.00	\$8,533.00
		SLAC M&S Total		M&S	0	7,000	\$0.00	\$0.00	\$0.00	\$7,000.00	\$0.00	\$0.00	\$0.00
5497	1.3.2.2.2.2	Tie bars	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219.00
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.00
5498	1.3.2.2.2.2	Earthquake restraints	SLAC	M&S	1	0 wks	\$0.00	\$6,000.00	\$0.00	\$6,000.00	\$360.00	\$954.00	\$7,314.00
		SLAC M&S Total		M&S	0	6,000	\$0.00	\$0.00	\$0.00	\$6,000.00	\$0.00	\$0.00	\$0.00
5499	1.3.2.2.2.2	Inspection	SLAC	B&H	3	1 wk	\$0.00	\$0.00	\$1,998.80	\$1,998.80	\$399.76	\$839.50	\$3,238.06
		SLAC Mech. Fab: Assembly Tech		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$1,998.80	\$0.00	\$0.00	\$0.00
5500	1.3.2.2.2.2	Assembly/Installation	SLAC	B&H	3	2 wks	\$0.00	\$0.00	\$3,997.60	\$3,997.60	\$799.52	\$1,678.99	\$6,476.11
		SLAC Mech. Fab: Assembly Tech		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$3,997.60	\$0.00	\$0.00	\$0.00
5501	1.3.2.2.2.2	Assembly/Installation	SLAC	ED&I	3	12 wks	\$0.00	\$0.00	\$57,600.00	\$57,600.00	\$11,520.00	\$24,192.00	\$93,312.00
		SLAC Project Management		ED&I	0	12 wks	\$0.00	\$0.00	\$0.00	\$57,600.00	\$0.00	\$0.00	\$0.00
5502	1.3.2.2.2.3	System Integration	SLAC	ED&I	3	35 wks	\$0.00	\$0.00	\$168,000.00	\$168,000.00	\$33,600.00	\$70,560.00	\$272,160.00
		SLAC Project Management		ED&I	0	35 wks	\$0.00	\$0.00	\$0.00	\$168,000.00	\$0.00	\$0.00	\$0.00
5503	1.3.2.3	Vacuum			0	74 wks	\$0.00	\$266,001.00	\$230,270.80	\$496,271.80	\$62,014.22	\$119,766.25	\$678,052.27
5504	1.3.2.3.1	Vacuum Components			0	25 wks	\$0.00	\$192,001.00	\$83,584.40	\$275,585.40	\$28,236.94	\$68,149.75	\$371,972.09
5505	1.3.2.3.1.1	Valves			0	2 wks	\$0.00	\$20,000.00	\$3,997.60	\$23,997.60	\$1,999.52	\$4,858.99	\$30,856.11
5506	1.3.2.3.1.1	Gate valves	SLAC	M&S	1	0 wks	\$0.00	\$13,000.00	\$0.00	\$13,000.00	\$780.00	\$2,067.00	\$15,847.00
		SLAC M&S Total		M&S	0	13,000	\$0.00	\$0.00	\$0.00	\$13,000.00	\$0.00	\$0.00	\$0.00
5507	1.3.2.3.1.1	Roughing	SLAC	M&S	1	0 wks	\$0.00	\$7,000.00	\$0.00	\$7,000.00	\$420.00	\$1,113.00	\$8,533.00

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ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		SLAC M&S Total		M&S	0	7,000	\$0.00	\$0.00	\$0.00	\$7,000.00	\$0.00	\$0.00	\$0.0
508	1.3.2.3.1.1	Inspection	SLAC	B&H	3	2 wks	\$0.00	\$0.00	\$3,997.60	\$3,997.60	\$799.52	\$1,678.99	\$6,476.1
		SLAC Mech. Fab: Assembly Tech		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$3,997.60	\$0.00	\$0.00	\$0.0
509	1.3.2.3.1.2	Hardware			0	1 wk	\$0.00	\$13,000.00	\$1,998.80	\$14,998.80	\$1,179.76	\$5,662.50	\$21,841.0
510	1.3.2.3.1.2	Flanges	SLAC	M&S	3	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$180.00	\$1,113.00	\$4,293.
		SLAC M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0.
511	1.3.2.3.1.2	Bellows	SLAC	M&S	3	0 wks	\$0.00	\$10,000.00	\$0.00	\$10,000.00	\$600.00	\$3,710.00	\$14,310.
		SLAC M&S Total		M&S	0	10,000	\$0.00	\$0.00	\$0.00	\$10,000.00	\$0.00	\$0.00	\$0.
512	1.3.2.3.1.2	Inspection	SLAC	B&H	3	1 wk	\$0.00	\$0.00	\$1,998.80	\$1,998.80	\$399.76	\$839.50	\$3,238.
		SLAC Mech. Fab: Assembly Tech		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$1,998.80	\$0.00	\$0.00	\$0.
513	1.3.2.3.1.3	Ion Pump System			0	4 wks	\$0.00	\$82,000.00	\$7,995.20	\$89,995.20	\$6,519.04	\$16,395.98	\$112,910.
514	1.3.2.3.1.3	Pumps	SLAC	M&S	1	0 wks	\$0.00	\$46,000.00	\$0.00	\$46,000.00	\$2,760.00	\$7,314.00	\$56,074.
		SLAC M&S Total		M&S	0	46,000	\$0.00	\$0.00	\$0.00	\$46,000.00	\$0.00	\$0.00	\$0.
515	1.3.2.3.1.3	Controller	SLAC	M&S	1	0 wks	\$0.00	\$29,000.00	\$0.00	\$29,000.00	\$1,740.00	\$4,611.00	\$35,351
		SLAC M&S Total		M&S	0	29,000	\$0.00	\$0.00	\$0.00	\$29,000.00	\$0.00	\$0.00	\$0.
516	1.3.2.3.1.3	4-way cross	SLAC	M&S	1	0 wks	\$0.00	\$6,000.00	\$0.00	\$6,000.00	\$360.00	\$954.00	\$7,314
		SLAC M&S Total		M&S	0	6,000	\$0.00	\$0.00	\$0.00	\$6,000.00	\$0.00	\$0.00	\$0.
517	1.3.2.3.1.3		SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.
518	1.3.2.3.1.3		SLAC	B&H	3	3 wks	\$0.00	\$0.00	\$5,996.40	\$5,996.40	\$1,199.28	\$2,518.49	\$9,714
316	1.3.2.3.1.3	·	SLAC	B&H	0	3 wks	\$0.00	\$0.00	\$0.00	\$5,996.40	\$0.00	\$0.00	\$9,714
F10	1.3.2.3.1.3	SLAC Mech. Fab: Assembly Tech	SLAC	B&H			\$0.00		\$1,998.80	\$1,998.80	\$399.76	\$839.50	
519	1.3.2.3.1.3	·	SLAC		3	1 wk		\$0.00					\$3,238
		SLAC Mech. Fab: Assembly Tech		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$1,998.80	\$0.00	\$0.00	\$0.
520	1.3.2.3.1.4				0	2 wks	\$0.00	\$24,001.00	\$3,997.60	\$27,998.60	\$2,239.58	\$5,495.15	\$35,733.
521	1.3.2.3.1.4	Pump	SLAC	M&S	1	0 wks	\$0.00	\$15,000.00	\$0.00	\$15,000.00	\$900.00	\$2,385.00	\$18,285
		SLAC M&S Total		M&S	0	15,000	\$0.00	\$0.00	\$0.00	\$15,000.00	\$0.00	\$0.00	\$0.
522	1.3.2.3.1.4	Controller	SLAC	M&S	1	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$180.00	\$477.00	\$3,657
		SLAC M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0.
523	1.3.2.3.1.4	Backing Punp	SLAC	M&S	1	0 wks	\$0.00	\$5,000.00	\$0.00	\$5,000.00	\$300.00	\$795.00	\$6,095
		SLAC M&S Total		M&S	0	5,000	\$0.00	\$0.00	\$0.00	\$5,000.00	\$0.00	\$0.00	\$0
524	1.3.2.3.1.4	Water Cooling	SLAC	M&S	1	0 wks	\$0.00	\$1.00	\$0.00	\$1.00	\$0.06	\$0.16	\$1
		SLAC M&S Total		M&S	0	1	\$0.00	\$0.00	\$0.00	\$1.00	\$0.00	\$0.00	\$0.
525	1.3.2.3.1.4	Vent System	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.
526	1.3.2.3.1.4	Inspection	SLAC	B&H	3	2 wks	\$0.00	\$0.00	\$3,997.60	\$3,997.60	\$799.52	\$1.678.99	\$6,476

101	0	CD4	TEC
LUL	٠.	CUI	TEC

ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		SLAC Mech. Fab: Assembly Tech		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$3,997.60	\$0.00	\$0.00	\$0.0
527	1.3.2.3.1.5	Guage System			0	16 wks	\$0.00	\$53,000.00	\$65,595.20	\$118,595.20	\$16,299.04	\$35,737.13	\$170,631.3
528	1.3.2.3.1.5	Gauges	SLAC	M&S	1	0 wks	\$0.00	\$6,000.00	\$0.00	\$6,000.00	\$360.00	\$954.00	\$7,314.0
		SLAC M&S Total		M&S	0	6,000	\$0.00	\$0.00	\$0.00	\$6,000.00	\$0.00	\$0.00	\$0.0
529	1.3.2.3.1.5	Gauge controllers	SLAC	M&S	1	0 wks	\$0.00	\$46,000.00	\$0.00	\$46,000.00	\$2,760.00	\$7,314.00	\$56,074.0
\dashv		SLAC M&S Total		M&S	0	46,000	\$0.00	\$0.00	\$0.00	\$46,000.00	\$0.00	\$0.00	\$0.0
530	1.3.2.3.1.5	Cables	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219.
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.
531	1.3.2.3.1.5	Assembly	SLAC	B&H	3	3 wks	\$0.00	\$0.00	\$5,996.40	\$5,996.40	\$1,199.28	\$2,518.49	\$9,714.
		SLAC Mech. Fab: Assembly Tech		B&H	0	3 wks	\$0.00	\$0.00	\$0.00	\$5,996.40	\$0.00	\$0.00	\$0.
532	1.3.2.3.1.5	Inspection	SLAC	B&H	2	1 wk	\$0.00	\$0.00	\$1,998.80	\$1,998.80	\$399.76	\$599.64	\$2,998.
\dashv		SLAC Mech. Fab: Assembly Tech		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$1,998.80	\$0.00	\$0.00	\$0.
533	1.3.2.3.1.6	System Integration	SLAC		0	12 wks	\$0.00	\$0.00	\$57,600.00	\$57,600.00	\$11,520.00	\$24,192.00	\$93,312.
534	1.3.2.3.1.6	System Integration	SLAC	ED&I	3	12 wks	\$0.00	\$0.00	\$57,600.00	\$57,600.00	\$11,520.00	\$24,192.00	\$93,312.
		SLAC Project Management		ED&I	0	12 wks	\$0.00	\$0.00	\$0.00	\$57,600.00	\$0.00	\$0.00	\$0.
535	1.3.2.3.2	Experimental chambers			0	49 wks	\$0.00	\$74,000.00	\$146,686.40	\$220,686.40	\$33,777.28	\$51,616.50	\$306,080.
536	1.3.2.3.2.1	Chamber: A2			0	8 wks	\$0.00	\$20,000.00	\$16,271.60	\$36,271.60	\$4,454.32	\$14,797.48	\$55,523.
537	1.3.2.3.2.1	Chamber	SLAC	M&S	4	0 wks	\$0.00	\$20,000.00	\$0.00	\$20,000.00	\$1,200.00	\$10,600.00	\$31,800.
	110.2.0.2.1	SLAC M&S Total	02.10	M&S	0	20,000	\$0.00	\$0.00	\$0.00	\$20,000.00	\$0.00	\$0.00	\$0.
538	1.3.2.3.2.1		SLAC	B&H		2 wks	\$0.00	\$0.00	\$3,997.60	\$3,997.60	\$799.52	\$1,678.99	\$6,476
538	1.3.2.3.2.1	Inspection	SLAC		3								
		SLAC Mech. Fab: Assembly Tech		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$3,997.60	\$0.00	\$0.00	\$0.
539	1.3.2.3.2.1	Assembly	SLAC	B&H	3	3 wks	\$0.00	\$0.00	\$5,996.40	\$5,996.40	\$1,199.28	\$2,518.49	\$9,714
		SLAC Mech. Fab: Assembly Tech		B&H	0	3 wks	\$0.00	\$0.00	\$0.00	\$5,996.40	\$0.00	\$0.00	\$0.
540	1.3.2.3.2.1	Installation	SLAC	B&H	0	2 wks	\$0.00	\$0.00	\$3,997.60	\$3,997.60	\$799.52	\$0.00	\$4,797
		SLAC Mech. Fab: Assembly Tech		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$3,997.60	\$0.00	\$0.00	\$0.
541	1.3.2.3.2.1	Alignment	SLAC	B&H	0	1 wk	\$0.00	\$0.00	\$2,280.00	\$2,280.00	\$456.00	\$0.00	\$2,736.
		SLAC Metrology:Eng.& Surveyors		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,280.00	\$0.00	\$0.00	\$0.
542	1.3.2.3.2.2	Chamber: B4			0	8 wks	\$0.00	\$17,000.00	\$16,271.60	\$33,271.60	\$4,274.32	\$11,339.07	\$48,884.
543	1.3.2.3.2.2	Chamber	SLAC	M&S	2	0 wks	\$0.00	\$17,000.00	\$0.00	\$17,000.00	\$1,020.00	\$4,505.00	\$22,525
		SLAC M&S Total		M&S	0	17,000	\$0.00	\$0.00	\$0.00	\$17,000.00	\$0.00	\$0.00	\$0.
544	1.3.2.3.2.2	Inspection	SLAC	B&H	3	2 wks	\$0.00	\$0.00	\$3,997.60	\$3,997.60	\$799.52	\$1,678.99	\$6,476
		SLAC Mech. Fab: Assembly Tech		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$3,997.60	\$0.00	\$0.00	\$0.
545	1.3.2.3.2.2	Assembly	SLAC	B&H	3	3 wks	\$0.00	\$0.00	\$5,996.40	\$5,996.40	\$1,199.28	\$2,518.49	\$9,714
		SLAC Mech. Fab: Assembly Tech		B&H	0	3 wks	\$0.00	\$0.00	\$0.00	\$5,996.40	\$0.00	\$0.00	\$0.
546	1.3.2.3.2.2	Installlation	SLAC	B&H	3	2 wks	\$0.00	\$0.00	\$3.997.60	\$3,997.60	\$799.52	\$1.678.99	\$6,476.

101	0	CD4	TEC
LUL	٠.	CUI	TEC

						LCLS_CD1_TEC	•						
ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		SLAC Mech. Fab: Assembly Tech		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$3,997.60	\$0.00	\$0.00	\$0.00
5547	1.3.2.3.2.2	Alignment	SLAC	B&H	3	1 wk	\$0.00	\$0.00	\$2,280.00	\$2,280.00	\$456.00	\$957.60	\$3,693.60
		SLAC Metrology:Eng.& Surveyors		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,280.00	\$0.00	\$0.00	\$0.00
5548	1.3.2.3.2.3	System Integration	SLAC		0	17 wks	\$0.00	\$0.00	\$81,600.00	\$81,600.00	\$16,320.00	\$0.00	\$97,920.00
5549	1.3.2.3.2.3	System Integration	SLAC	ED&I	0	17 wks	\$0.00	\$0.00	\$81,600.00	\$81,600.00	\$16,320.00	\$0.00	\$97,920.00
		SLAC Project Management		ED&I	0	17 wks	\$0.00	\$0.00	\$0.00	\$81,600.00	\$0.00	\$0.00	\$0.00
5550	1.3.2.3.2.4	Chamber: A3	SLAC		3	8 wks	\$0.00	\$20,000.00	\$16,271.60	\$36,271.60	\$4,454.32	\$13,296.47	\$54,022.39
5551	1.3.2.3.2.4	chamber	SLAC	M&S	3	0 wks	\$0.00	\$20,000.00	\$0.00	\$20,000.00	\$1,200.00	\$7,420.00	\$28,620.00
		SLAC M&S Total		M&S	0	20,000	\$0.00	\$0.00	\$0.00	\$20,000.00	\$0.00	\$0.00	\$0.00
5552	1.3.2.3.2.4	inspection	SLAC	B&H	3	2 wks	\$0.00	\$0.00	\$3,997.60	\$3,997.60	\$799.52	\$1,678.99	\$6,476.11
		SLAC Mech. Fab: Assembly Tech		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$3,997.60	\$0.00	\$0.00	\$0.00
5553	1.3.2.3.2.4	assembly	SLAC	B&H	3	3 wks	\$0.00	\$0.00	\$5,996.40	\$5,996.40	\$1,199.28	\$2,518.49	\$9,714.17
		SLAC Mech. Fab: Assembly Tech		B&H	0	3 wks	\$0.00	\$0.00	\$0.00	\$5,996.40	\$0.00	\$0.00	\$0.00
5554	1.3.2.3.2.4	installation	SLAC	B&H	3	2 wks	\$0.00	\$0.00	\$3,997.60	\$3,997.60	\$799.52	\$1,678.99	\$6,476.11
		SLAC Mech. Fab: Assembly Tech		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$3,997.60	\$0.00	\$0.00	\$0.00
5555	1.3.2.3.2.4	alignment	SLAC	B&H	0	1 wk	\$0.00	\$0.00	\$2,280.00	\$2,280.00	\$456.00	\$0.00	\$2,736.00
		SLAC Metrology:Eng.& Surveyors		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,280.00	\$0.00	\$0.00	\$0.00
5556	1.3.2.3.2.5	Chamber: B5	SLAC		3	8 wks	\$0.00	\$17,000.00	\$16,271.60	\$33,271.60	\$4,274.32	\$12,183.47	\$49,729.39
5557	1.3.2.3.2.5	chamber	SLAC	M&S	3	0 wks	\$0.00	\$17,000.00	\$0.00	\$17,000.00	\$1,020.00	\$6,307.00	\$24,327.00
		SLAC M&S Total		M&S	0	17,000	\$0.00	\$0.00	\$0.00	\$17,000.00	\$0.00	\$0.00	\$0.00
5558	1.3.2.3.2.5	inspection	SLAC	B&H	3	2 wks	\$0.00	\$0.00	\$3,997.60	\$3,997.60	\$799.52	\$1,678.99	\$6,476.11
		SLAC Mech. Fab: Assembly Tech		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$3,997.60	\$0.00	\$0.00	\$0.00
5559	1.3.2.3.2.5	assembly	SLAC	B&H	3	3 wks	\$0.00	\$0.00	\$5,996.40	\$5,996.40	\$1,199.28	\$2,518.49	\$9,714.17
		SLAC Mech. Fab: Assembly Tech		В&Н	0	3 wks	\$0.00	\$0.00	\$0.00	\$5,996.40	\$0.00	\$0.00	\$0.00
5560	1.3.2.3.2.5	installation	SLAC	B&H	3	2 wks	\$0.00	\$0.00	\$3,997.60	\$3,997.60	\$799.52	\$1,678.99	\$6,476.11
		SLAC Mech. Fab: Assembly Tech		В&Н	0	2 wks	\$0.00	\$0.00	\$0.00	\$3,997.60	\$0.00	\$0.00	\$0.00
5561	1.3.2.3.2.5	alignment	SLAC	B&H	0	1 wk	\$0.00	\$0.00	\$2,280.00	\$2,280.00	\$456.00	\$0.00	\$2,736.00
		SLAC Metrology:Eng.& Surveyors		В&Н	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,280.00	\$0.00	\$0.00	\$0.00
5562	1.3.2.4	Controls			0	75 wks	\$0.00	\$3,704,000.00	\$291,291.20	\$3,995,291.20	\$280,498.24	\$1,769,698.30	\$6,045,487.74
5563	1.3.2.4.1	Controls			0	13 wks	\$0.00	\$1,166,000.00	\$35,360.00	\$1,201,360.00	\$77,032.00	\$447,437.20	\$1,725,829.20
5564	1.3.2.4.1.1	Infrastructure			0	0 wks	\$0.00	\$86,000.00	\$0.00	\$86,000.00	\$5,160.00	\$31,906.00	\$123,066.00
5565	1.3.2.4.1.1	Cable trays:outside contract	SLAC	M&S	0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
		SLAC M&S Total		M&S	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
5566	1.3.2.4.1.1	FFTB extension	SLAC	M&S	3	0 wks	\$0.00	\$14,000.00	\$0.00	\$14,000.00	\$840.00	\$5,194.00	\$20,034.00
,					1								
		SLAC M&S Total		M&S	0	14,000	\$0.00	\$0.00	\$0.00	\$14,000.00	\$0.00	\$0.00	\$0.00

101	0	CD4	TEC
LUL	٠.	CUI	TEC

						LCLS_CD1_TEC							
ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
5567	1.3.2.4.1.1	Hall A	SLAC	M&S	3	0 wks	\$0.00	\$12,000.00	\$0.00	\$12,000.00	\$720.00	\$4,452.00	\$17,172.0
		SLAC M&S Total		M&S	0	12,000	\$0.00	\$0.00	\$0.00	\$12,000.00	\$0.00	\$0.00	\$0.0
5568	1.3.2.4.1.1	Tunnel	SLAC	M&S	3	0 wks	\$0.00	\$48,000.00	\$0.00	\$48,000.00	\$2,880.00	\$17,808.00	\$68,688.0
		SLAC M&S Total		M&S	0	48,000	\$0.00	\$0.00	\$0.00	\$48,000.00	\$0.00	\$0.00	\$0.0
5569	1.3.2.4.1.1	Hall B	SLAC	M&S	3	0 wks	\$0.00	\$12,000.00	\$0.00	\$12,000.00	\$720.00	\$4,452.00	\$17,172.0
		SLAC M&S Total		M&S	0	12,000	\$0.00	\$0.00	\$0.00	\$12,000.00	\$0.00	\$0.00	\$0.0
5570	1.3.2.4.1.2	Network			0	13 wks	\$0.00	\$530,000.00	\$35,360.00	\$565,360.00	\$38,872.00	\$211,481.20	\$815,713.2
5571	1.3.2.4.1.2	Installation (trunk cable)	SLAC	B&H	3	13 wks	\$0.00	\$0.00	\$35,360.00	\$35,360.00	\$7,072.00	\$14,851.20	\$57,283.2
		SLAC T&M Crafts - Union Electrician		B&H	0	13 wks	\$0.00	\$0.00	\$0.00	\$35,360.00	\$0.00	\$0.00	\$0.0
5572	1.3.2.4.1.2	Cisco 6509 router	SLAC	M&S	3	0 wks	\$0.00	\$150,000.00	\$0.00	\$150,000.00	\$9,000.00	\$55,650.00	\$214,650.0
		SLAC M&S Total		M&S	0	150,000	\$0.00	\$0.00	\$0.00	\$150,000.00	\$0.00	\$0.00	\$0.0
5573	1.3.2.4.1.2	Catalyst switches	SLAC	M&S	3	0 wks	\$0.00	\$100,000.00	\$0.00	\$100,000.00	\$6,000.00	\$37,100.00	\$143,100.0
		SLAC M&S Total		M&S	0	100,000	\$0.00	\$0.00	\$0.00	\$100,000.00	\$0.00	\$0.00	\$0.0
5574	1.3.2.4.1.2	Cisco Wireless hubs	SLAC	M&S	3	0 wks	\$0.00	\$30,000.00	\$0.00	\$30,000.00	\$1,800.00	\$11,130.00	\$42,930.0
		SLAC M&S Total		M&S	0	30,000	\$0.00	\$0.00	\$0.00	\$30,000.00	\$0.00	\$0.00	\$0.0
5575	1.3.2.4.1.2	Fiber optics, CAT-5 cable	SLAC	M&S	3	0 wks	\$0.00	\$50,000.00	\$0.00	\$50,000.00	\$3,000.00	\$18,550.00	\$71,550.0
		SLAC M&S Total		M&S	0	50,000	\$0.00	\$0.00	\$0.00	\$50,000.00	\$0.00	\$0.00	\$0.0
5576	1.3.2.4.1.2	Connectors/components	SLAC	M&S	3	0 wks	\$0.00	\$30,000.00	\$0.00	\$30,000.00	\$1,800.00	\$11,130.00	\$42,930.0
		SLAC M&S Total		M&S	0	30,000	\$0.00	\$0.00	\$0.00	\$30,000.00	\$0.00	\$0.00	\$0.0
5577	1.3.2.4.1.2	Satellite room components	SLAC	M&S	3	0 wks	\$0.00	\$50,000.00	\$0.00	\$50,000.00	\$3,000.00	\$18,550.00	\$71,550.0
		SLAC M&S Total		M&S	0	50,000	\$0.00	\$0.00	\$0.00	\$50,000.00	\$0.00	\$0.00	\$0.0
5578	1.3.2.4.1.2		SLAC	M&S	3	0 wks	\$0.00	\$60,000.00	\$0.00	\$60,000.00	\$3,600.00	\$22,260.00	\$85,860.0
		SLAC M&S Total		M&S	0	60,000	\$0.00	\$0.00	\$0.00	\$60,000.00	\$0.00	\$0.00	\$0.0
5579	1.3.2.4.1.2	Maintanence contract	SLAC	M&S	3	0 wks	\$0.00	\$60,000.00	\$0.00	\$60,000.00	\$3,600.00	\$22,260.00	\$85,860.0
3010	1.0.2.4.1.2	SLAC M&S Total	OE/10	M&S		60,000	\$0.00	\$0.00	\$0.00	\$60,000.00	\$0.00	\$0.00	\$0.0
5500	100110			Mas	0								
5580	1.3.2.4.1.3	Reserved			0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
5581	1.3.2.4.1.3	Domain servers	SLAC	M&S	3	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
		SLAC M&S Total		M&S	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
5582	1.3.2.4.1.3	Tape library	SLAC	M&S	3	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
		SLAC M&S Total		M&S	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
5583	1.3.2.4.1.3	File server	SLAC	M&S	3	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
		SLAC M&S Total		M&S	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
5584	1.3.2.4.1.3	Printers	SLAC	M&S	3	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
		SLAC M&S Total		M&S	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
5585	1.3.2.4.1.3	PC's	SLAC	M&S	3	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0

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ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		SLAC M&S Total		M&S	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
586	1.3.2.4.1.3	Software (specialized apps +OS)	SLAC	M&S	3	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
		SLAC M&S Total		M&S	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
587	1.3.2.4.1.4	Beamline controls			0	0 wks	\$0.00	\$550,000.00	\$0.00	\$550,000.00	\$33,000.00	\$204,050.00	\$787,050.0
588	1.3.2.4.1.4	Motion control/electronics	SLAC	M&S	3	0 wks	\$0.00	\$240,000.00	\$0.00	\$240,000.00	\$14,400.00	\$89,040.00	\$343,440.
		SLAC M&S Total		M&S	0	240,000	\$0.00	\$0.00	\$0.00	\$240,000.00	\$0.00	\$0.00	\$0.
589	1.3.2.4.1.4	Single task computers	SLAC	M&S	3	0 wks	\$0.00	\$20,000.00	\$0.00	\$20,000.00	\$1,200.00	\$7,420.00	\$28,620
		SLAC M&S Total		M&S	0	20,000	\$0.00	\$0.00	\$0.00	\$20,000.00	\$0.00	\$0.00	\$0.
90	1.3.2.4.1.4	Control computer	SLAC	M&S	3	0 wks	\$0.00	\$10,000.00	\$0.00	\$10,000.00	\$600.00	\$3,710.00	\$14,310
		SLAC M&S Total		M&S	0	10,000	\$0.00	\$0.00	\$0.00	\$10,000.00	\$0.00	\$0.00	\$0.
591	1.3.2.4.1.4	Graphics computer	SLAC	M&S	3	0 wks	\$0.00	\$100,000.00	\$0.00	\$100,000.00	\$6,000.00	\$37,100.00	\$143,100
		SLAC M&S Total		M&S	0	100,000	\$0.00	\$0.00	\$0.00	\$100,000.00	\$0.00	\$0.00	\$0.
92	1.3.2.4.1.4	Info services	SLAC	M&S	3	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
		SLAC M&S Total		M&S	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
93	1.3.2.4.1.4	Web-server	SLAC	M&S	3	0 wks	\$0.00	\$50,000.00	\$0.00	\$50,000.00	\$3,000.00	\$18,550.00	\$71,550
		SLAC M&S Total		M&S	0	50,000	\$0.00	\$0.00	\$0.00	\$50,000.00	\$0.00	\$0.00	\$0
94	1.3.2.4.1.4	Database server	SLAC	M&S	3	0 wks	\$0.00	\$80,000.00	\$0.00	\$80,000.00	\$4,800.00	\$29,680.00	\$114,480
		SLAC M&S Total		M&S	0	80,000	\$0.00	\$0.00	\$0.00	\$80,000.00	\$0.00	\$0.00	\$0
595	1.3.2.4.1.4	Office apps	SLAC	M&S	3	0 wks	\$0.00	\$50,000.00	\$0.00	\$50,000.00	\$3,000.00	\$18,550.00	\$71,550
		SLAC M&S Total		M&S	0	50,000	\$0.00	\$0.00	\$0.00	\$50,000.00	\$0.00	\$0.00	\$0
596	1.3.2.4.1.4	High performance computing	SLAC	M&S	3	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
		SLAC M&S Total		M&S	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
597	1.3.2.4.1.4		SLAC	M&S	3	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
		SLAC M&S Total		M&S	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
598	1.3.2.4.2	Detectors			0	62 wks	\$0.00	\$2,538,000.00	\$255,931.20	\$2,793,931.20	\$203,466.24	\$1,322,261.10	\$4,319,658
599	1.3.2.4.2.1	Beam Imaging	SLAC		0	6 wks	\$0.00	\$20,000.00	\$11,502.40	\$31,502.40	\$3,500.48	\$12.251.01	\$47,253.
500	1.3.2.4.2.1	Hardware	SLAC	M&S	3	0 wks	\$0.00	\$20,000.00	\$0.00	\$20,000.00	\$1,200.00	\$7,420.00	\$28,620
	1.5.2.4.2.1	SLAC M&S Total	SLAC	M&S	0	20,000	\$0.00	\$0.00	\$0.00	\$20,000.00	\$0.00	\$0.00	\$20,020
501	1.3.2.4.2.1	Assembly	SLAC	B&H	3	20,000 4 wks	\$0.00	\$0.00	\$7,995.20	\$7,995.20	\$1,599.04	\$3,357.98	\$12,952
001	1.3.2.4.2.1	·	SLAC										
		SLAC Mech. Fab: Assembly Tech		B&H	0	4 wks	\$0.00	\$0.00	\$0.00	\$7,995.20	\$0.00	\$0.00	\$0
02	1.3.2.4.2.1	Assembly/install	SLAC	B&H	3	2 wks	\$0.00	\$0.00	\$3,507.20	\$3,507.20	\$701.44	\$1,473.02	\$5,681
		SLAC PCD:Technician		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$3,507.20	\$0.00	\$0.00	\$0
603	1.3.2.4.2.2	Intensity	SLAC		0	2 wks	\$0.00	\$21,000.00	\$3,507.20	\$24,507.20	\$1,961.44	\$9,264.02	\$35,732
504	1.3.2.4.2.2	Detectors	SLAC	M&S	3	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$180.00	\$1,113.00	\$4,293
		SLAC M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0.

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ID 605	CWBS 1.3.2.4.2.2	Task Name Electronics	OBS SLAC	PHASE M&S	Risk 3	Units 0 wks	PED (Direct) \$0.00	M&S (Direct) \$18,000.00	Labor (Direct) \$0.00	Direct Cost \$18,000.00	Overhead Cost \$1,080.00	Contingency Cost \$6,678.00	Total Cost \$25,758.
		SLAC M&S Total		M&S	0	18,000	\$0.00	\$0.00	\$0.00	\$18,000.00	\$0.00	\$0.00	\$0.0
												.	
606	1.3.2.4.2.2	Assembly/install	SLAC	B&H	3	2 wks	\$0.00	\$0.00	\$3,507.20	\$3,507.20	\$701.44	\$1,473.02	\$5,681.
		SLAC PCD:Technician		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$3,507.20	\$0.00	\$0.00	\$0.0
607	1.3.2.4.2.3	Streak Camera	SLAC		0	2 wks	\$0.00	\$97,000.00	\$3,507.20	\$100,507.20	\$6,521.44	\$25,800.02	\$132,828.6
608	1.3.2.4.2.3	Vacuum pumps	SLAC	M&S	2	0 wks	\$0.00	\$15,000.00	\$0.00	\$15,000.00	\$900.00	\$3,975.00	\$19,875.
		SLAC M&S Total		M&S	0	15,000	\$0.00	\$0.00	\$0.00	\$15,000.00	\$0.00	\$0.00	\$0.
509	1.3.2.4.2.3	Gauges	SLAC	M&S	1	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$180.00	\$477.00	\$3,657
\dashv		SLAC M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0.
510	1.3.2.4.2.3	Cathode PSU	SLAC	M&S	2	0 wks	\$0.00	\$4,000.00	\$0.00	\$4,000.00	\$240.00	\$1,060.00	\$5,300
,,,	1.0.2.4.2.0	SLAC M&S Total	CENO	M&S			\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	
					0	4,000							\$0.
511	1.3.2.4.2.3	Cathode Pulser	SLAC	M&S	2	0 wks	\$0.00	\$17,000.00	\$0.00	\$17,000.00	\$1,020.00	\$4,505.00	\$22,525
		SLAC M&S Total		M&S	0	17,000	\$0.00	\$0.00	\$0.00	\$17,000.00	\$0.00	\$0.00	\$0
612	1.3.2.4.2.3	Bias/sweep PSUs	SLAC	M&S	2	0 wks	\$0.00	\$35,000.00	\$0.00	\$35,000.00	\$2,100.00	\$9,275.00	\$46,375
		SLAC M&S Total		M&S	0	35,000	\$0.00	\$0.00	\$0.00	\$35,000.00	\$0.00	\$0.00	\$0
13	1.3.2.4.2.3	Electron ccd system	SLAC	M&S	1	0 wks	\$0.00	\$4,000.00	\$0.00	\$4,000.00	\$240.00	\$636.00	\$4,876
		SLAC M&S Total		M&S	0	4,000	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$0
614	1.3.2.4.2.3	Vacuum hardware	SLAC	M&S	3	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$371.00	\$1,431
\dashv		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.
315	1.3.2.4.2.3	Slits	SLAC	M&S	1	0 wks	\$0.00	\$4,000.00	\$0.00	\$4,000.00	\$240.00	\$636.00	\$4,876
,,,,	1.0.2.4.2.0		CENO		'								
		SLAC M&S Total		M&S	0	4,000	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$0
616	1.3.2.4.2.3	Cathode substrates (20)	SLAC	M&S	1	0 wks	\$0.00	\$4,000.00	\$0.00	\$4,000.00	\$240.00	\$636.00	\$4,876
		SLAC M&S Total		M&S	0	4,000	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$0
517	1.3.2.4.2.3	Cathode coatings (3)	SLAC	M&S	1	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$318.00	\$2,438
\dashv		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0
518	1.3.2.4.2.3	Slides / picomotors	SLAC	M&S	2	0 wks	\$0.00	\$5,000.00	\$0.00	\$5,000.00	\$300.00	\$1,325.00	\$6,625
		SLAC M&S Total		M&S	0	5,000	\$0.00	\$0.00	\$0.00	\$5,000.00	\$0.00	\$0.00	\$0
19	1.3.2.4.2.3	BN insulator and Ti bolts	SLAC	M&S	3	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$371.00	\$1,431
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0
520	1.3.2.4.2.3	· ·	SLAC	M&S	3	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$742.00	\$2,862
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0
21	1.3.2.4.2.3	Assembly/install	SLAC	B&H	3	2 wks	\$0.00	\$0.00	\$3,507.20	\$3,507.20	\$701.44	\$1,473.02	\$5,681
		SLAC PCD:Technician		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$3,507.20	\$0.00	\$0.00	\$0
522	1.3.2.4.2.4	2-D X-Ray Detector	SLAC		0	4 wks	\$0.00	\$2,400,000.00	\$7,014.40	\$2,407,014.40	\$145,402.88	\$1,274,946.05	\$3,827,363
523	1.3.2.4.2.4	Fab runs	SLAC	M&S	4	0 wks	\$0.00	\$2,000,000.00	\$0.00	\$2,000,000.00	\$120,000.00	\$1,060,000.00	\$3,180,000

ID	CWBS	Task Name SLAC M&S Total	OBS	PHASE M&S	Risk	Units 2,000,000	PED (Direct)	M&S (Direct) \$0.00	Labor (Direct)	Direct Cost \$2,000,000.00	Overhead Cost \$0.00	Contingency Cost \$0.00	Total Cost \$0.0
5624	1.3.2.4.2.4	Misc materials	SLAC	M&S	4	0 wks	\$0.00	\$400,000.00	\$0.00	\$400,000.00	\$24,000.00	\$212,000.00	\$636,000.0
7024	1.0.2.4.2.4	SLAC M&S Total	OLINO	M&S	0	400,000	\$0.00	\$0.00	\$0.00	\$400,000.00	\$0.00	\$0.00	\$0.0
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625	1.3.2.4.2.4	Assembly/install	SLAC	B&H	3	4 wks	\$0.00	\$0.00	\$7,014.40	\$7,014.40	\$1,402.88	\$2,946.05	\$11,363.3
		SLAC PCD:Technician		B&H	0	4 wks	\$0.00	\$0.00	\$0.00	\$7,014.40	\$0.00	\$0.00	\$0.0
5626	1.3.2.4.2.5	System Integration	SLAC		3	48 wks	\$0.00	\$0.00	\$230,400.00	\$230,400.00	\$46,080.00	\$0.00	\$276,480.0
627	1.3.2.4.2.5	Project Manager	SLAC	ED&I	0	48 wks	\$0.00	\$0.00	\$230,400.00	\$230,400.00	\$46,080.00	\$0.00	\$276,480.0
		SLAC Project Management		ED&I	0	48 wks	\$0.00	\$0.00	\$0.00	\$230,400.00	\$0.00	\$0.00	\$0.0
5628	1.3.2.5	Laser systems			0	120.75 wks	\$0.00	\$1,412,400.00	\$405,297.60	\$1,817,697.60	\$165,803.52	\$398,138.08	\$2,381,639.2
5629	1.3.2.5.1	Oscillator Laser & Pump			0	5 wks	\$0.00	\$247,000.00	\$17,000.00	\$264,000.00	\$18,220.00	\$44,373.00	\$326,593.0
5630	1.3.2.5.1.1	·	SLAC	ED&I	2	2.5 wks	\$0.00	\$0.00	\$8,500.00	\$8,500.00	\$1,700.00	\$2,550.00	\$12,750.0
5630	1.3.2.5.1.1	Oscillator Laser & Pump	SLAC				***						
		SLAC Physicist -Scientist		ED&I	0	2.5 wks	\$0.00	\$0.00	\$0.00	\$8,500.00	\$0.00	\$0.00	\$0.0
631	1.3.2.5.1.1	Oscillator Laser & Pump	SLAC	ED&I	2	2.5 wks	\$0.00	\$0.00	\$8,500.00	\$8,500.00	\$1,700.00	\$2,550.00	\$12,750.0
		SLAC Physicist - Senior Scientist		ED&I	0	2.5 wks	\$0.00	\$0.00	\$0.00	\$8,500.00	\$0.00	\$0.00	\$0.0
632	1.3.2.5.1.1	CW diode-pumped doubled Nd:YVO4 (eg. Model Millennia	SLAC	M&S	1	0 wks	\$0.00	\$104,400.00	\$0.00	\$104,400.00	\$6,264.00	\$16,599.60	\$127,263.6
		Xs-P) SLAC M&S Total		M&S	0	104,400	\$0.00	\$0.00	\$0.00	\$104,400.00	\$0.00	\$0.00	\$0.0
633	1.3.2.5.1.2	Nd:YVO4 Service Contract	SLAC	M&S	1	0 wks	\$0.00	\$13,200.00	\$0.00	\$13,200.00	\$792.00	\$2,098.80	\$16,090.8
		SLAC M&S Total		M&S	0	13,200	\$0.00	\$0.00	\$0.00	\$13,200.00	\$0.00	\$0.00	\$0.0
634	1.3.2.5.1.3		SIAC	M&S	1	0 wks	\$0.00	\$98,400.00	\$0.00	\$98,400.00	\$5,904.00	\$15,645.60	\$119,949.6
0034	1.3.2.3.1.3	,	SLAC		'		***						
		SLAC M&S Total		M&S	0	98,400	\$0.00	\$0.00	\$0.00	\$98,400.00	\$0.00	\$0.00	\$0.0
635	1.3.2.5.1.4	Ti:S Oscillator Service Contract	SLAC	M&S	1	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$318.00	\$2,438.0
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.0
5636	1.3.2.5.1.5	Oscillator synchronization option (eg. C-Option)	SLAC	M&S	1	0 wks	\$0.00	\$29,000.00	\$0.00	\$29,000.00	\$1,740.00	\$4,611.00	\$35,351.0
		SLAC M&S Total		M&S	0	29,000	\$0.00	\$0.00	\$0.00	\$29,000.00	\$0.00	\$0.00	\$0.0
5637	1.3.2.5.2	Oscillator Diagnostics			0	5 wks	\$0.00	\$228,500.00	\$17,000.00	\$245,500.00	\$17,110.00	\$42,703.50	\$305,313.5
5638	1.3.2.5.2.1	Oscillator Diagnostics	SLAC	ED&I	2	2.5 wks	\$0.00	\$0.00	\$8,500.00	\$8,500.00	\$1,700.00	\$2,550.00	\$12,750.0
		SLAC Physicist -Scientist		ED&I	0	2.5 wks	\$0.00	\$0.00	\$0.00	\$8,500.00	\$0.00	\$0.00	\$0.0
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639	1.3.2.5.2.1	Oscillator Diagnostics	SLAC	ED&I	2	2.5 wks	\$0.00	\$0.00	\$8,500.00	\$8,500.00	\$1,700.00	\$2,550.00	\$12,750.0
		SLAC Physicist - Senior Scientist		ED&I	0	2.5 wks	\$0.00	\$0.00	\$0.00	\$8,500.00	\$0.00	\$0.00	\$0.0
640	1.3.2.5.2.1	Autocorrelators (scanning)	SLAC	M&S	1	0 wks	\$0.00	\$18,500.00	\$0.00	\$18,500.00	\$1,110.00	\$2,941.50	\$22,551.
		SLAC M&S Total		M&S	0	18,500	\$0.00	\$0.00	\$0.00	\$18,500.00	\$0.00	\$0.00	\$0.0
641	1.3.2.5.2.2	IR wavelength monitors (spectrometers)	SLAC	M&S	2	0 wks	\$0.00	\$5,000.00	\$0.00	\$5,000.00	\$300.00	\$1,325.00	\$6,625.0
		SLAC M&S Total		M&S	0	5,000	\$0.00	\$0.00	\$0.00	\$5,000.00	\$0.00	\$0.00	\$0.0
642	1.3.2.5.2.3	CCD camera	SLAC	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$530.00	\$2,650.0
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.0

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LUL	٠.	CUI	TEC

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ID		Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
5643	1.3.2.5.2.4	Power/energy meter (2 channel)	SLAC	M&S	1	0 wks	\$0.00	\$8,000.00	\$0.00	\$8,000.00	\$480.00	\$1,272.00	\$9,752.00
		SLAC M&S Total		M&S	0	8,000	\$0.00	\$0.00	\$0.00	\$8,000.00	\$0.00	\$0.00	\$0.00
5644	1.3.2.5.2.5	Power /energy sensor , 10W	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219.00
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.00
5645	1.3.2.5.2.6	Power /energy sensor , 2W	SLAC	M&S	1	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$318.00	\$2,438.00
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.00
5646	1.3.2.5.2.7	>12 GHz photodiodes	SLAC	M&S	1	0 wks	\$0.00	\$14,000.00	\$0.00	\$14,000.00	\$840.00	\$2,226.00	\$17,066.00
		SLAC M&S Total		M&S	0	14,000	\$0.00	\$0.00	\$0.00	\$14,000.00	\$0.00	\$0.00	\$0.00
5647	1.3.2.5.2.8	20-50GHz, 4 channel scope	SLAC	M&S	1	0 wks	\$0.00	\$70,000.00	\$0.00	\$70,000.00	\$4,200.00	\$11,130.00	\$85,330.00
		SLAC M&S Total		M&S	0	70,000	\$0.00	\$0.00	\$0.00	\$70,000.00	\$0.00	\$0.00	\$0.00
5648	1.3.2.5.2.9	1-ns risetime diodes	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219.00
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.00
5649	1.3.2.5.2.10	IR FROG	SLAC	M&S	1	0 wks	\$0.00	\$21,000.00	\$0.00	\$21,000.00	\$1,260.00	\$3,339.00	\$25,599.00
		SLAC M&S Total		M&S	0	21,000	\$0.00	\$0.00	\$0.00	\$21,000.00	\$0.00	\$0.00	\$0.00
5650	1.3.2.5.2.11	Fiber-coupled spectrometer (vis-ir)	SLAC	M&S	2	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$180.00	\$795.00	\$3,975.00
		SLAC M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0.00
5651	1.3.2.5.2.12	Planar mirrors/splitters	SLAC	M&S	1	0 wks	\$0.00	\$11,000.00	\$0.00	\$11,000.00	\$660.00	\$1,749.00	\$13,409.00
		SLAC M&S Total		M&S	0	11,000	\$0.00	\$0.00	\$0.00	\$11,000.00	\$0.00	\$0.00	\$0.00
5652	1.3.2.5.2.13	Mirror mounts	SLAC	M&S	1	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$180.00	\$477.00	\$3,657.00
		SLAC M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0.00
5653	1.3.2.5.2.14	Pop-in mounts (rotary)	SLAC	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$530.00	\$2,650.00
	1.0.2.0.2.14	SLAC M&S Total	OBNO	M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.00
5654	1.3.2.5.2.15	Alignment irises on posts	SLAC	M&S	1	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$318.00	\$2,438.00
5054	1.3.2.5.2.15		SLAC	M&S						\$2,000.00			\$2,438.00
		SLAC M&S Total			0	2,000	\$0.00	\$0.00	\$0.00		\$0.00	\$0.00	
5655	1.3.2.5.2.16	Post collars	SLAC	M&S	1	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
		SLAC M&S Total		M&S	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
5656	1.3.2.5.2.17	Beam profiler system (includes ir,vis,uv cameras + PC)	SLAC	M&S	1	0 wks	\$0.00	\$60,000.00	\$0.00	\$60,000.00	\$3,600.00	\$9,540.00	\$73,140.00
		SLAC M&S Total		M&S	0	60,000	\$0.00	\$0.00	\$0.00	\$60,000.00	\$0.00	\$0.00	\$0.00
5657	1.3.2.5.2.18	Posts	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219.00
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.00
5658	1.3.2.5.2.19	Posts Holders	SLAC	M&S	1	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$318.00	\$2,438.00
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.00
5659	1.3.2.5.2.20	Post Holder Bases	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219.00
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.00
5660	1.3.2.5.2.21	Beam dumps	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219.00

C	CD1	TEC

ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.0
661	1.3.2.5.3	Pulse Stretcher			0	3.15 wks	\$0.00	\$19,000.00	\$10,630.00	\$29,630.00	\$3,266.00	\$6,374.40	\$39,270.4
662	1.3.2.5.3.1	Pulse Stretcher	SLAC	ED&I	2	1.25 wks	\$0.00	\$0.00	\$4,250.00	\$4,250.00	\$850.00	\$1,275.00	\$6,375.
		SLAC Physicist -Scientist		ED&I	0	1.25 wks	\$0.00	\$0.00	\$0.00	\$4,250.00	\$0.00	\$0.00	\$0.
663	1.3.2.5.3.1	Pulse Stretcher	SLAC	ED&I	2	1.5 wks	\$0.00	\$0.00	\$5,100.00	\$5,100.00	\$1,020.00	\$1,530.00	\$7,650.
\dashv		SLAC Physicist - Senior Scientist		ED&I	0	1.5 wks	\$0.00	\$0.00	\$0.00	\$5,100.00	\$0.00	\$0.00	\$0.
664	1.3.2.5.3.1	Gratings, 1x2 in, 1700 li/mm, 780 nm	SLAC	M&S	1	0 wks	\$0.00	\$12,000.00	\$0.00	\$12,000.00	\$720.00	\$1,908.00	\$14,628
		SLAC M&S Total		M&S	0	12,000	\$0.00	\$0.00	\$0.00	\$12,000.00	\$0.00	\$0.00	\$0.
665	1.3.2.5.3.2	Grating mounts, tip,tilt,azim knobs	SLAC	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$530.00	\$2,650
\dashv		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.
666	1.3.2.5.3.3	Lenses,D=2 in f=0.5m,coated, 780nm	SLAC	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$265.00	\$1,325
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.
67	1.3.2.5.3.4	2 inch lens mounts	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219
\dashv		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.
668	1.3.2.5.3.5	Prisms, 2x2 in, coated, 780nm	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0
69	1.3.2.5.3.6		SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219
,00	1.0.2.0.0.0	SLAC M&S Total	OL/10	M&S		1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.
570	1.3.2.5.3.7		SLAC	M&S		0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219
570	1.3.2.5.3.7	Translation stages with micrometer	SLAC		'		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,						
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0
571	1.3.2.5.3.8		SLAC	B&H	1	0.4 wks	\$0.00	\$0.00	\$1,280.00	\$1,280.00	\$256.00	\$230.40	\$1,766
		SLAC Mech. Fab: Machine Shop		B&H	0	0.4 wks	\$0.00	\$0.00	\$0.00	\$1,280.00	\$0.00	\$0.00	\$0
672	1.3.2.5.4	Pockels Cells and Drivers (ir)			0	9.5 wks	\$0.00	\$27,000.00	\$32,300.00	\$59,300.00	\$8,080.00	\$14,195.00	\$81,575
573	1.3.2.5.4.1	Pockels Cells and Drivers (ir)	SLAC	ED&I	2	5 wks	\$0.00	\$0.00	\$17,000.00	\$17,000.00	\$3,400.00	\$5,100.00	\$25,500
		SLAC Physicist -Scientist		ED&I	0	5 wks	\$0.00	\$0.00	\$0.00	\$17,000.00	\$0.00	\$0.00	\$0
674	1.3.2.5.4.1	Pockels Cells and Drivers (ir)	SLAC	ED&I	2	4.5 wks	\$0.00	\$0.00	\$15,300.00	\$15,300.00	\$3,060.00	\$4,590.00	\$22,950
\dashv		SLAC Physicist - Senior Scientist		ED&I	0	4.5 wks	\$0.00	\$0.00	\$0.00	\$15,300.00	\$0.00	\$0.00	\$0
75	1.3.2.5.4.1	Pockels cells, 8mm, sol-gel@780nm	SLAC	M&S	1	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$180.00	\$477.00	\$3,657
		SLAC M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0
676	1.3.2.5.4.2	Tilt mounts for pockels cells	SLAC	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$265.00	\$1,325
\dashv		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0
577	1.3.2.5.4.3	V-block clamps for pockels cells	SLAC	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$265.00	\$1,325
-		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0
678	1.3.2.5.4.4	6.5 kV pulsers, full off-on-off in <12ns	SLAC	M&S	1	0 wks	\$0.00	\$20,000.00	\$0.00	\$20,000.00	\$1,200.00	\$3,180.00	\$24,380
		SLAC M&S Total		M&S	0	20,000	\$0.00	\$0.00	\$0.00	\$20,000.00	\$0.00	\$0.00	\$0.

101	0	CD4	TEC
LUL	٠.	CUI	TEC

ID		Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
5679	1.3.2.5.4.5	Polarizers, coated for 780 nm (cubes)	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219.0
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.00
680	1.3.2.5.4.6	Polarizer mounts	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219.0
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.00
5681	1.3.2.5.4.7	Post collars	SLAC	M&S	1	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
		SLAC M&S Total		M&S	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
5682	1.3.2.5.4.8	Posts	SLAC	M&S	1	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
		SLAC M&S Total		M&S	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
5683	1.3.2.5.4.9	Post holders	SLAC	M&S	1	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
		SLAC M&S Total		M&S	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
5684	1.3.2.5.4.10	Post holder bases	SLAC	M&S	1	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
		SLAC M&S Total		M&S	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
5685	1.3.2.5.4.11	Beam covers	SLAC	M&S	2	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
		SLAC M&S Total		M&S	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
5686	1.3.2.5.5	Pump Laser System			0	16.8 wks	\$0.00	\$357,000.00	\$56,960.00	\$413,960.00	\$32,812.00	\$81,483.00	\$528,255.00
5687	1.3.2.5.5		SLAC	ED&I	2	8 wks	\$0.00	\$0.00	\$27,200.00	\$27,200.00	\$5,440.00	\$8,160.00	\$40,800.0
3007	1.0.2.0.0	SLAC Physicist - Senior Scientist	GEAG	ED&I	0	8 wks	\$0.00	\$0.00	\$0.00	\$27,200.00	\$0.00	\$0.00	\$0.00
5688	1.3.2.5.5	·	SLAC	ED&I	2	8 wks	\$0.00	\$0.00	\$27,200.00	\$27,200.00	\$5,440.00	\$8,160.00	\$40,800.0
3000	1.0.2.0.0	SLAC Physicist -Scientist	SEAC	ED&I	0	8 wks	\$0.00	\$0.00	\$0.00	\$27,200.00	\$0.00	\$0.00	\$0.00
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5689	1.3.2.5.5.1	Q-switched Nd:YAG, 532nm, 60HZ, 200mJ	SLAC	M&S	1	0 wks	\$0.00	\$238,000.00	\$0.00	\$238,000.00	\$14,280.00		\$290,122.0
		SLAC M&S Total		M&S	0	238,000	\$0.00	\$0.00	\$0.00	\$238,000.00	\$0.00	\$0.00	\$0.00
5690	1.3.2.5.5.2		SLAC	M&S	1	0 wks	\$0.00	\$16,000.00	\$0.00	\$16,000.00	\$960.00	\$2,544.00	\$19,504.0
		SLAC M&S Total		M&S	0	16,000	\$0.00	\$0.00	\$0.00	\$16,000.00	\$0.00	\$0.00	\$0.00
5691	1.3.2.5.5.3	Pockels cells(19mm) sol-gel @532nm	SLAC	M&S	2	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$180.00	\$795.00	\$3,975.0
		SLAC M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0.00
5692	1.3.2.5.5.4	Tilt mounts for pockels cells	SLAC	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$265.00	\$1,325.0
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.00
5693	1.3.2.5.5.5	V-block clamps for pockels cells	SLAC	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$265.00	\$1,325.0
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.00
5694	1.3.2.5.5.6	6.5 KV pulser	SLAC	M&S	2	0 wks	\$0.00	\$20,000.00	\$0.00	\$20,000.00	\$1,200.00	\$5,300.00	\$26,500.0
		SLAC M&S Total		M&S	0	20,000	\$0.00	\$0.00	\$0.00	\$20,000.00	\$0.00	\$0.00	\$0.00
5695	1.3.2.5.5.7	Pockels cell HV feedforward drivers	SLAC	M&S	2	0 wks	\$0.00	\$10,000.00	\$0.00	\$10,000.00	\$600.00	\$2,650.00	\$13,250.0
		SLAC M&S Total		M&S	0	10,000	\$0.00	\$0.00	\$0.00	\$10,000.00	\$0.00	\$0.00	\$0.00
5696	1.3.2.5.5.8	PDU unit (80ns risetime, SCP interface	SLAC	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$530.00	\$2,650.0
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.00

101	0	CD4	TEC
LUL	٠.	CUI	TEC

						LCLS_CD1_TEC							
ID		Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
5697	1.3.2.5.5.9	CAMAC controller	SLAC	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$530.00	\$2,650.00
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.00
5698	1.3.2.5.5.10	Digital delay generators	SLAC	M&S	2	0 wks	\$0.00	\$5,000.00	\$0.00	\$5,000.00	\$300.00	\$1,325.00	\$6,625.00
		SLAC M&S Total		M&S	0	5,000	\$0.00	\$0.00	\$0.00	\$5,000.00	\$0.00	\$0.00	\$0.00
5699	1.3.2.5.5.11	Polarizers, coated for 532 nm (cubes)	SLAC	M&S	2	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$180.00	\$795.00	\$3,975.00
		SLAC M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0.00
5700	1.3.2.5.5.12	Polarizer mounts	SLAC	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$530.00	\$2,650.00
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.00
5701	1.3.2.5.5.13	Waveplates	SLAC	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$530.00	\$2,650.00
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.00
5702	1.3.2.5.5.14	Waveplate mounts	SLAC	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$265.00	\$1,325.00
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.00
5703	1.3.2.5.5.15	Irises	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219.00
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.00
5704	1.3.2.5.5.16	Post collars	SLAC	M&S	1	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
		SLAC M&S Total		M&S	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
5705	1.3.2.5.5.17	Post	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219.00
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.00
5706	1.3.2.5.5.18	Post holders	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219.00
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.00
5707	1.3.2.5.5.19		SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219.00
3707	1.3.2.3.3.19	SLAC M&S Total	SLAC		'		\$0.00		\$0.00				
				M&S	0	1,000	, , , , ,	\$0.00	,	\$1,000.00	\$0.00	\$0.00	\$0.00
5708	1.3.2.5.5.20	CCD camera	SLAC	M&S	2	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$180.00	\$795.00	\$3,975.00
		SLAC M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0.00
5709	1.3.2.5.5.21	Planar mirrors/splitters	SLAC	M&S	2	0 wks	\$0.00	\$4,000.00	\$0.00	\$4,000.00	\$240.00	\$1,060.00	\$5,300.00
		SLAC M&S Total		M&S	0	4,000	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$0.00
5710	1.3.2.5.5.22	Mirror mounts	SLAC	M&S	2	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$180.00	\$795.00	\$3,975.00
		SLAC M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0.00
5711	1.3.2.5.5.23	Diodes (I nsec)	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219.00
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.00
5712	1.3.2.5.5.24	6 GHz photodiodes	SLAC	M&S	1	0 wks	\$0.00	\$10,000.00	\$0.00	\$10,000.00	\$600.00	\$1,590.00	\$12,190.00
		SLAC M&S Total	52.5	M&S	0	10,000	\$0.00	\$0.00	\$0.00	\$10,000.00	\$0.00	\$0.00	\$0.00
5713	1.3.2.5.5.25		SLAC	M&S			\$0.00	\$5,000.00	\$0.00	\$5,000.00	\$300.00	\$795.00	\$6,095.00
3/13	1.3.2.5.5.25	Power/energy sensors	SLAC		1	0 wks							
		SLAC M&S Total		M&S	0	5,000	\$0.00	\$0.00	\$0.00	\$5,000.00	\$0.00	\$0.00	\$0.00
5714	1.3.2.5.5.26	Power/energy meters	SLAC	M&S	1	0 wks	\$0.00	\$10,000.00	\$0.00	\$10,000.00	\$600.00	\$1,590.00	\$12,190.00

I CI	S	CD1	TEC

						LCLS_CD1_TEC	;						
ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		SLAC M&S Total		M&S	0	10,000	\$0.00	\$0.00	\$0.00	\$10,000.00	\$0.00	\$0.00	\$0.00
5715	1.3.2.5.5.27	Faraday isolator	SLAC	M&S	2	0 wks	\$0.00	\$7,000.00	\$0.00	\$7,000.00	\$420.00	\$1,855.00	\$9,275.00
		SLAC M&S Total		M&S	0	7,000	\$0.00	\$0.00	\$0.00	\$7,000.00	\$0.00	\$0.00	\$0.00
5716	1.3.2.5.5.28	Isolator mount	SLAC	B&H	2	0.4 wks	\$0.00	\$0.00	\$1,280.00	\$1,280.00	\$256.00	\$384.00	\$1,920.00
		SLAC Mech. Fab: Machine Shop		B&H	0	0.4 wks	\$0.00	\$0.00	\$0.00	\$1,280.00	\$0.00	\$0.00	\$0.00
5717	1.3.2.5.5.29	Spherical lenses	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219.00
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.00
5718	1.3.2.5.5.30	Lens mounts	SLAC	M&S	2	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
		SLAC M&S Total		M&S	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
5719	1.3.2.5.5.31	Beam dumps	SLAC	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$530.00	\$2,650.00
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.00
5720	1.3.2.5.5.32	Integrate&hold mods (peak detector)	SLAC	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$265.00	\$1,325.00
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.00
5721	1.3.2.5.5.33	Beam covers	SLAC	B&H	2	0.4 wks	\$0.00	\$0.00	\$1,280.00	\$1,280.00	\$256.00	\$384.00	\$1,920.00
		SLAC Mech. Fab: Machine Shop		В&Н	0	0.4 wks	\$0.00	\$0.00	\$0.00	\$1,280.00	\$0.00	\$0.00	\$0.00
5722	1.3.2.5.6	Timing Stabilization			0	5 wks	\$0.00	\$195,000.00	\$17,000.00	\$212,000.00	\$15,100.00	\$51,369.00	\$278,469.00
5723	1.3.2.5.6.1	Timing Stabilization	SLAC	ED&I	2	1.25 wks	\$0.00	\$0.00	. ,	\$4,250.00	\$850.00	\$1,275.00	\$6,375.00
0720	1.0.2.0.0.1	SLAC Physicist -Scientist	GEAG	ED&I	0	1.25 wks	\$0.00	\$0.00	\$0.00	\$4,250.00	\$0.00	\$0.00	\$0.00
5724	1.3.2.5.6.1	Timing Stabilization	SLAC	ED&I	2	3.75 wks	\$0.00	\$0.00		\$12,750.00	\$2,550.00	\$3,825.00	\$19,125.00
3724	1.3.2.3.0.1	-	JEAC										
		SLAC Physicist - Senior Scientist		ED&I	0	3.75 wks	\$0.00	\$0.00	\$0.00	\$12,750.00	\$0.00	\$0.00	\$0.00
5725	1.3.2.5.6.1	Fiber optic link	SLAC	M&S	2	0 wks	\$0.00	\$20,000.00	\$0.00	\$20,000.00	\$1,200.00	\$5,300.00	\$26,500.00
		SLAC M&S Total		M&S	0	20,000	\$0.00	\$0.00	\$0.00	\$20,000.00	\$0.00	\$0.00	\$0.00
5726	1.3.2.5.6.2	20 GHz photodiode	SLAC	M&S	1	0 wks	\$0.00	\$7,000.00	\$0.00	\$7,000.00	\$420.00	\$1,113.00	\$8,533.00
		SLAC M&S Total		M&S	0	7,000	\$0.00	\$0.00	\$0.00	\$7,000.00	\$0.00	\$0.00	\$0.00
5727	1.3.2.5.6.3	Low Pass & Band Pass filters	SLAC	M&S	2	0 wks	\$0.00	\$4,000.00	\$0.00	\$4,000.00	\$240.00	\$1,060.00	\$5,300.00
		SLAC M&S Total		M&S	0	4,000	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$0.00
5728	1.3.2.5.6.4	RF amplifier	SLAC	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$530.00	\$2,650.00
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.00
5729	1.3.2.5.6.5	Isolator	SLAC	M&S	2	0 wks	\$0.00	\$10,000.00	\$0.00	\$10,000.00	\$600.00	\$2,650.00	\$13,250.00
		SLAC M&S Total		M&S	0	10,000	\$0.00	\$0.00	\$0.00	\$10,000.00	\$0.00	\$0.00	\$0.00
5730	1.3.2.5.6.6	Phase shifter	SLAC	M&S	2	0 wks	\$0.00	\$4,000.00	\$0.00	\$4,000.00	\$240.00	\$1,060.00	\$5,300.00
		SLAC M&S Total		M&S	0	4,000	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$0.00
5731	1.3.2.5.6.7	Double-balanced mixer	SLAC	M&S	2	0 wks	\$0.00	\$4,000.00	\$0.00	\$4,000.00	\$240.00	\$1,060.00	\$5,300.00
		SLAC M&S Total		M&S	0	4,000	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$0.00
5732	1.3.2.5.6.8	DC amp, 200V	SLAC	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$265.00	\$1,325.00

I CI	S	CD1	TEC

ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.0
733	1.3.2.5.6.9	DC amp, 10V	SLAC	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$265.00	\$1,325.0
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.
734	1.3.2.5.6.10	20 GHz sampling scope	SLAC	M&S	1	0 wks	\$0.00	\$44,000.00	\$0.00	\$44,000.00	\$2,640.00	\$6,996.00	\$53,636.
		SLAC M&S Total		M&S	0	44,000	\$0.00	\$0.00	\$0.00	\$44,000.00	\$0.00	\$0.00	\$0.
735	1.3.2.5.6.11	DC-3GHz spectrum analyzer	SLAC	M&S	2	0 wks	\$0.00	\$50,000.00	\$0.00	\$50,000.00	\$3,000.00	\$13,250.00	\$66,250.
		SLAC M&S Total		M&S	0	50,000	\$0.00	\$0.00	\$0.00	\$50,000.00	\$0.00	\$0.00	\$0.
736	1.3.2.5.6.12	Computer interface	SLAC	M&S	2	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$180.00	\$795.00	\$3,975
		SLAC M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0.
737	1.3.2.5.6.13	Prism on computer controlled stage	SLAC	M&S	2	0 wks	\$0.00	\$7,000.00	\$0.00	\$7,000.00	\$420.00	\$1,855.00	\$9,275
		SLAC M&S Total		M&S	0	7,000	\$0.00	\$0.00	\$0.00	\$7,000.00	\$0.00	\$0.00	\$0.
738	1.3.2.5.6.14	Integrated elecro-optic module	SLAC	M&S	2	0 wks	\$0.00	\$7,000.00	\$0.00	\$7,000.00	\$420.00	\$1,855.00	\$9,275
		SLAC M&S Total		M&S	0	7,000	\$0.00	\$0.00	\$0.00	\$7,000.00	\$0.00	\$0.00	\$0
739	1.3.2.5.6.15	Planar mirrors / splitters	SLAC	M&S	2	0 wks	\$0.00	\$6,000.00	\$0.00	\$6,000.00	\$360.00	\$1,590.00	\$7,950
		SLAC M&S Total		M&S	0	6,000	\$0.00	\$0.00	\$0.00	\$6,000.00	\$0.00	\$0.00	\$0
740	1.3.2.5.6.16	BPM or res. Cavity	SLAC	M&S	2	0 wks	\$0.00	\$5,000.00	\$0.00	\$5,000.00	\$300.00	\$1,325.00	\$6,625
		SLAC M&S Total		M&S	0	5,000	\$0.00	\$0.00	\$0.00	\$5,000.00	\$0.00	\$0.00	\$0
741	1.3.2.5.6.17		SLAC	M&S	2	0 wks	\$0.00	\$20,000.00	\$0.00	\$20,000.00	\$1,200.00	\$5,300.00	\$26,500
		SLAC M&S Total		M&S	0	20,000	\$0.00	\$0.00	\$0.00	\$20,000.00	\$0.00	\$0.00	\$0
742	1.3.2.5.7	Laser Amplifiers			0	48.15 wks	\$0.00	\$61,000.00	\$161,980.00	\$222,980.00	\$36,056.00	\$62,109.00	\$321,145
743	1.3.2.5.7.1	Laser Amplifiers	SLAC	ED&I	2	28.75 wks	\$0.00	\$0.00	\$97,750.00	\$97,750.00	\$19,550.00	\$29,325.00	\$146,625
143	1.3.2.3.7.1	·	SLAC	ED&I			\$0.00						
		SLAC Physicist -Scientist			0	28.75 wks	·	\$0.00	\$0.00	\$97,750.00	\$0.00	\$0.00	\$0
744	1.3.2.5.7.1	·	SLAC	ED&I	2	17.5 wks	\$0.00	\$0.00	\$59,500.00	\$59,500.00	\$11,900.00	\$17,850.00	\$89,250
		SLAC Physicist - Senior Scientist		ED&I	0	17.5 wks	\$0.00	\$0.00	\$0.00	\$59,500.00	\$0.00	\$0.00	\$0
745	1.3.2.5.7.1	Ti-Sapphire crystals	SLAC	M&S	2	0 wks	\$0.00	\$8,000.00	\$0.00	\$8,000.00	\$480.00	\$2,120.00	\$10,600
		SLAC M&S Total		M&S	0	8,000	\$0.00	\$0.00	\$0.00	\$8,000.00	\$0.00	\$0.00	\$0
746	1.3.2.5.7.2	Hor crystal mounts with water cooling	SLAC	M&S	2	0 wks	\$0.00	\$4,000.00	\$0.00	\$4,000.00	\$240.00	\$1,060.00	\$5,300
		SLAC M&S Total		M&S	0	4,000	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$0
747	1.3.2.5.7.2	Hor crystal mounts with water cooling	SLAC	ED&I	2	1.5 wks	\$0.00	\$0.00	\$3,450.00	\$3,450.00	\$690.00	\$1,035.00	\$5,175
		SLAC Mech Drafting/Design		ED&I	0	1.5 wks	\$0.00	\$0.00	\$0.00	\$3,450.00	\$0.00	\$0.00	\$0
748	1.3.2.5.7.3	Planar mirrors/splitters	SLAC	M&S	2	0 wks	\$0.00	\$6,000.00	\$0.00	\$6,000.00	\$360.00	\$1,590.00	\$7,950
		SLAC M&S Total		M&S	0	6,000	\$0.00	\$0.00	\$0.00	\$6,000.00	\$0.00	\$0.00	\$0
749	1.3.2.5.7.4	Mirror mounts	SLAC	M&S	2	0 wks	\$0.00	\$4,000.00	\$0.00	\$4,000.00	\$240.00	\$1,060.00	\$5,300
		SLAC M&S Total		M&S	0	4,000	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$0
750	1.3.2.5.7.5	Spherical lenses, f = 1m, coated	SLAC	M&S	2	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$180.00	\$795.00	\$3,975

101	0	CD4	TEC
LUL	٠.	CUI	TEC

Section Sect							LCLS_CD1_TEC	;						
Total 13 2 5 7 1	ID	CWBS		OBS		Risk		, ,	(,					Total Cost
State Stat			SLAC M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0.00
STATE STATE Printing	5751	1.3.2.5.7.6	Lens mounts	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219.00
SEAC MAS Torsis			SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.00
2015 1.3.2.5.7.12 Provide mounts (service) SLAC Mass 2 Oake \$0.00 \$1.00.00 \$0.00 \$1.00.0	5752	1.3.2.5.7.7	Pinholes	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219.00
SURF MAST TOWN MAST No.			SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.00
State	5753	1.3.2.5.7.8	Pinhole mounts (with xy translation)	SLAC	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$265.00	\$1,325.00
SAC MAS Total SAC MAS Total NAS 0 7,000 8000 8000 8000 8000 8000 8000 8			SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.00
Second Column	5754	1.3.2.5.7.9	Alignment irises (on posts)	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219.00
SLAC MAS Total			SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.00
STOPE 1.3.2.5.7.12 Posts SLAC MAS 1	5755	1.3.2.5.7.10	Post collars	SLAC	M&S	1	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
SLAC MAS Total			SLAC M&S Total		M&S	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
State	5756	1.3.2.5.7.11	Posts	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219.00
Stack Mas Total			SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.00
State Stat	5757	1.3.2.5.7.12	Post Holders	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219.00
SLAC MAS Total SLAC MAS Total SLAC MAS S S S S S S S S S S S S S S S S S S			SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.00
STS9 1.3.2.5.7.14 CCD camerias	5758	1.3.2.5.7.13	Post Holder Bases	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219.00
SIAC MAS Total			SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.00
Stack Stac	5759	1.3.2.5.7.14	CCD cameras	SLAC	M&S	2	0 wks	\$0.00	\$5,000.00	\$0.00	\$5,000.00	\$300.00	\$1,325.00	\$6,625.00
SLAC M&S Total			SLAC M&S Total		M&S	0	5,000	\$0.00	\$0.00	\$0.00	\$5,000.00	\$0.00	\$0.00	\$0.00
State Stat	5760	1.3.2.5.7.15	Power/energy sensors	SLAC	M&S	1	0 wks	\$0.00	\$6,000.00	\$0.00	\$6,000.00	\$360.00	\$954.00	\$7,314.00
SLAC M&S Total M&S 0 13,000 \$0.00			SLAC M&S Total		M&S	0	6,000	\$0.00	\$0.00	\$0.00	\$6,000.00	\$0.00	\$0.00	\$0.00
STAC 1.3.2.5.7.17 Half waveplates SLAC M&S 2 0 wks \$0.00 \$2,000.00 \$2,000.00 \$120.00 \$530.00 \$2,600.00 \$2,000 \$2,000.00 \$2,000 \$2,000.00 \$2,000	5761	1.3.2.5.7.16	Power/energy meters	SLAC	M&S	1	0 wks	\$0.00	\$13,000.00	\$0.00	\$13,000.00	\$780.00	\$2,067.00	\$15,847.00
SLAC M&S Total			SLAC M&S Total		M&S	0	13,000	\$0.00	\$0.00	\$0.00	\$13,000.00	\$0.00	\$0.00	\$0.00
STAC Mas Stac Mas Stac Mas Stac Mas Stac Mas Stac Mas Stac Stac Stac Stac Stac Mas Stac Mas Stac S	5762	1.3.2.5.7.17	Half waveplates	SLAC	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$530.00	\$2,650.00
SLAC M&S Total			SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.00
Stack	5763	1.3.2.5.7.18	Waveplate mounts	SLAC	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$265.00	\$1,325.00
SLAC M&S Total M&S 0 1,000 \$0.00 \$			SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.00
Stack	5764	1.3.2.5.7.19	Polarizing cube	SLAC	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$265.00	\$1,325.00
SLAC M&S Total M&S 0 0 \$0.00			SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.00
Stack	5765	1.3.2.5.7.20	Polarizer cube mount	SLAC	M&S	2	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
SLAC M&S Total M&S 0 1,000 \$0.00 \$0.00 \$0.00 \$1,000.00 \$0.00 \$0.00 \$3.00 \$1,000.00 \$0.00 \$3.00 \$1,000.00 \$0.00 \$1,00			SLAC M&S Total		M&S	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
5767 1.3.2.5.7.22 Beam covers SLAC B&H 2 0.4 wks \$0.00 \$1,280.00 \$1,280.00 \$256.00 \$384.00 \$1,93	5766	1.3.2.5.7.21	Beam dumps	SLAC	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$265.00	\$1,325.00
			SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.00
SLAC Mech. Fab: Machine Shop B&H 0 0.4 wks \$0.00 \$0.00 \$1,280.00 \$0.00 \$0.00 \$	5767	1.3.2.5.7.22	Beam covers	SLAC	B&H	2	0.4 wks	\$0.00	\$0.00	\$1,280.00	\$1,280.00	\$256.00	\$384.00	\$1,920.00
			SLAC Mech. Fab: Machine Shop		B&H	0	0.4 wks	\$0.00	\$0.00	\$0.00	\$1,280.00	\$0.00	\$0.00	\$0.00
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ID 5768	CWBS 1.3.2.5.8	Task Name Amplifier Diagnostics	OBS SLAC	PHASE	Risk 0	Units 9.5 wks	PED (Direct)	M&S (Direct) \$89,200.00	Labor (Direct) \$32,300.00	Direct Cost \$121,500.00	Overhead Cost \$11,812.00	Contingency Cost \$29,194.00	Total Cost \$162,506.0
5769	1.3.2.5.8.1	Amplifier Diagnostics	SLAC	ED&I	2	4.5 wks	\$0.00	\$0.00	\$15,300.00	\$15,300.00	\$3,060.00	\$4,590.00	\$22,950.0
		SLAC Physicist -Scientist		ED&I	0	4.5 wks	\$0.00	\$0.00	\$0.00	\$15,300.00	\$0.00	\$0.00	\$0.0
770	1.3.2.5.8.1	Amplifier Diagnostics	SLAC	ED&I	2	5 wks	\$0.00	\$0.00	\$17,000.00	\$17,000.00	\$3,400.00	\$5,100.00	\$25,500.0
		SLAC Physicist - Senior Scientist		ED&I	0	5 wks	\$0.00	\$0.00	\$0.00	\$17,000.00	\$0.00	\$0.00	\$0.0
		-			0								
771	1.3.2.5.8.1	Power/energy meters (2 channel)	SLAC	M&S	1	0 wks	\$0.00	\$13,000.00	\$0.00	\$13,000.00	\$780.00	\$2,067.00	\$15,847.
		SLAC M&S Total		M&S	0	13,000	\$0.00	\$0.00	\$0.00	\$13,000.00	\$0.00	\$0.00	\$0.
772	1.3.2.5.8.2	Power/energy sensors	SLAC	M&S	1	0 wks	\$0.00	\$6,000.00	\$0.00	\$6,000.00	\$360.00	\$954.00	\$7,314.
		SLAC M&S Total		M&S	0	6,000	\$0.00	\$0.00	\$0.00	\$6,000.00	\$0.00	\$0.00	\$0.
773	1.3.2.5.8.3	ND Filter set	SLAC	M&S	2	0 wks	\$0.00	\$6,000.00	\$0.00	\$6,000.00	\$360.00	\$1,590.00	\$7,950.
		SLAC M&S Total		M&S	0	6,000	\$0.00	\$0.00	\$0.00	\$6,000.00	\$0.00	\$0.00	\$0.
774	1.3.2.5.8.4	532 nm filter	SLAC	M&S	2	0 wks	\$0.00	\$100.00	\$0.00	\$100.00	\$6.00	\$26.50	\$132.
		SLAC M&S Total		M&S	0	100	\$0.00	\$0.00	\$0.00	\$100.00	\$0.00	\$0.00	\$0.
775	1.3.2.5.8.5	780 nm filter	SLAC	M&S	2	0 wks	\$0.00	\$100.00	\$0.00	\$100.00	\$6.00	\$26.50	\$132.
_		SLAC M&S Total		M&S	0	100	\$0.00	\$0.00	\$0.00	\$100.00	\$0.00	\$0.00	\$0.
776	1.3.2.5.8.6		SLAC	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$265.00	\$1,325
	1.0.2.0.0.0	SLAC M&S Total	GENO	M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.
	1.3.2.5.8.7		SLAC	M&S			\$0.00	\$2,000.00	\$0.00	\$2,000.00		\$318.00	
777	1.3.2.5.8.7	Photodiodes (nsec)	SLAC		1	0 wks					\$120.00		\$2,438.
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.
778	1.3.2.5.8.8	12 GHz photodiode	SLAC	M&S	1	0 wks	\$0.00	\$14,000.00	\$0.00	\$14,000.00	\$840.00	\$2,226.00	\$17,066.
		SLAC M&S Total		M&S	0	14,000	\$0.00	\$0.00	\$0.00	\$14,000.00	\$0.00	\$0.00	\$0.
779	1.3.2.5.8.8	CCD cameras	SLAC	M&S	2	0 wks	\$0.00	\$6,000.00	\$0.00	\$6,000.00	\$360.00	\$1,590.00	\$7,950.
		SLAC M&S Total		M&S	0	6,000	\$0.00	\$0.00	\$0.00	\$6,000.00	\$0.00	\$0.00	\$0.
780	1.3.2.5.8.9	Frame grabber card for PC	SLAC	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$265.00	\$1,325.
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.
781	1.3.2.5.8.10	Labview software	SLAC	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$530.00	\$2,650.
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.
782	1.3.2.5.8.11	Beam analysis software	SLAC	M&S	2	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$180.00	\$795.00	\$3,975.
		SLAC M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0.
783	1.3.2.5.8.12		SLAC	M&S	2	0 wks	\$0.00	\$5,000.00	\$0.00	\$5,000.00	\$300.00	\$1,325.00	\$6,625.
		SLAC M&S Total		M&S	0	5,000	\$0.00	\$0.00	\$0.00	\$5,000.00	\$0.00	\$0.00	\$0.
784	1.3.2.5.8.13		SLAC	M&S	2	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$180.00	\$795.00	\$3,975.
		SLAC M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0.
785	1.3.2.5.8.14	FROG (ir)	SLAC	M&S	2	0 wks	\$0.00	\$21,000.00	\$0.00	\$21,000.00	\$1,260.00	\$5,565.00	\$27,825.
		SLAC M&S Total		M&S	0	21,000	\$0.00	\$0.00	\$0.00	\$21,000.00	\$0.00	\$0.00	\$0.

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ID 5786	CWBS 1.3.2.5.8.15	Task Name PC (FROG analyses)	OBS SLAC	PHASE M&S	Risk 2	Units 0 wks	PED (Direct) \$0.00	M&S (Direct) \$2,000.00	Labor (Direct) \$0.00	Direct Cost \$2,000.00	Overhead Cost \$120.00	Contingency Cost \$530.00	Total Cost \$2,650.00
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.00
5707	1005010		81.40	M&S								.	
5787	1.3.2.5.8.16	Alignment irises	SLAC		1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219.0
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.00
5788	1.3.2.5.8.17	Post collars	SLAC	M&S	1	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
		SLAC M&S Total		M&S	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
5789	1.3.2.5.8.18	Posts	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219.0
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.00
5790	1.3.2.5.8.19	Post holders	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219.0
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.00
5791	1.3.2.5.8.20	Post holder bases	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219.0
3791	1.3.2.3.6.20		SLAC		'								
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.00
5792	1.3.2.5.9	Vacuum Spatial Filters			0	3.15 wks	\$0.00	\$26,000.00	\$10,630.00	\$36,630.00	\$3,686.00	\$9,559.60	\$49,875.60
5793	1.3.2.5.9.1	Vacuum Spatial Filters	SLAC	ED&I	2	1.5 wks	\$0.00	\$0.00	\$5,100.00	\$5,100.00	\$1,020.00	\$1,530.00	\$7,650.0
		SLAC Physicist -Scientist		ED&I	0	1.5 wks	\$0.00	\$0.00	\$0.00	\$5,100.00	\$0.00	\$0.00	\$0.00
5794	1.3.2.5.9.1	Vacuum Spatial Filters	SLAC	ED&I	2	1.25 wks	\$0.00	\$0.00	\$4,250.00	\$4,250.00	\$850.00	\$1,275.00	\$6,375.0
		SLAC Physicist - Senior Scientist		ED&I	0	1.25 wks	\$0.00	\$0.00	\$0.00	\$4,250.00	\$0.00	\$0.00	\$0.00
5795	1.3.2.5.9.1	Lenses, f ~ 0.5 m, AR coated	SLAC	M&S	1	0 wks	\$0.00	\$600.00	\$0.00	\$600.00	\$36.00	\$95.40	\$731.4
		SLAC M&S Total		M&S	0	600	\$0.00	\$0.00	\$0.00	\$600.00	\$0.00	\$0.00	\$0.00
5796	1.3.2.5.9.2		SLAC	M&S		0 wks	\$0.00	\$400.00		\$400.00	\$24.00	\$63.60	\$487.6
3790	1.3.2.3.9.2	viewport)	SLAC		'								
		SLAC M&S Total		M&S	0	400	\$0.00	\$0.00	\$0.00	\$400.00	\$0.00	\$0.00	\$0.00
5797	1.3.2.5.9.3	Vacuum welded bellows	SLAC	M&S	2	0 wks	\$0.00	\$1,000.00		\$1,000.00	\$60.00	\$265.00	\$1,325.0
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.00
5798	1.3.2.5.9.4	Diamond pinholes, mounted	SLAC	M&S	2	0 wks	\$0.00	\$300.00	\$0.00	\$300.00	\$18.00	\$79.50	\$397.5
		SLAC M&S Total		M&S	0	300	\$0.00	\$0.00	\$0.00	\$300.00	\$0.00	\$0.00	\$0.00
5799	1.3.2.5.9.5	XYZ mounts, 1 in travel	SLAC	M&S	2	0 wks	\$0.00	\$4,000.00	\$0.00	\$4,000.00	\$240.00	\$1,060.00	\$5,300.0
		SLAC M&S Total		M&S	0	4,000	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$0.00
5800	1.3.2.5.9.6	Diode vacuum pumps 8 l/s	SLAC	M&S	2	0 wks	\$0.00	\$1,800.00	\$0.00	\$1,800.00	\$108.00	\$477.00	\$2,385.0
		SLAC M&S Total		M&S	0	1,800	\$0.00	\$0.00	\$0.00	\$1,800.00	\$0.00	\$0.00	\$0.00
E004	122507		SI AC				·					.	\$3,413.20
5801	1.3.2.5.9.7	Ion-pump controller and cable	SLAC	M&S	1	0 wks	\$0.00	\$2,800.00	\$0.00	\$2,800.00	\$168.00	\$445.20	
		SLAC M&S Total		M&S	0	2,800	\$0.00	\$0.00	\$0.00	\$2,800.00	\$0.00	\$0.00	\$0.00
5802	1.3.2.5.9.8	Rack-mount, setpoint display, pumps	SLAC	M&S	1	0 wks	\$0.00	\$1,100.00	\$0.00	\$1,100.00	\$66.00	\$174.90	\$1,340.9
		SLAC M&S Total		M&S	0	1,100	\$0.00	\$0.00	\$0.00	\$1,100.00	\$0.00	\$0.00	\$0.00
5803	1.3.2.5.9.9	Turbo roughing and support pump	SLAC	M&S	2	0 wks	\$0.00	\$8,000.00	\$0.00	\$8,000.00	\$480.00	\$2,120.00	\$10,600.0
		SLAC M&S Total		M&S	0	8,000	\$0.00	\$0.00	\$0.00	\$8,000.00	\$0.00	\$0.00	\$0.00

ID		Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
804	1.3.2.5.9.10	Misc vacuum hardware	SLAC	M&S	2	0 wks	\$0.00	\$5,000.00	\$0.00	\$5,000.00	\$300.00	\$1,325.00	\$6,625.0
		SLAC M&S Total		M&S	0	5,000	\$0.00	\$0.00	\$0.00	\$5,000.00	\$0.00	\$0.00	\$0.0
805	1.3.2.5.9.11	Vacuum windows (AR coated for 780 nm)	SLAC	M&S	2	0 wks	\$0.00	\$400.00	\$0.00	\$400.00	\$24.00	\$106.00	\$530.0
		SLAC M&S Total		M&S	0	400	\$0.00	\$0.00	\$0.00	\$400.00	\$0.00	\$0.00	\$0.0
5806	1.3.2.5.9.12	Lens mounts	SLAC	M&S	2	0 wks	\$0.00	\$600.00	\$0.00	\$600.00	\$36.00	\$159.00	\$795.0
		SLAC M&S Total		M&S	0	600	\$0.00	\$0.00	\$0.00	\$600.00	\$0.00	\$0.00	\$0.0
5807	1.3.2.5.9.13	Beam covers	SLAC	B&H	2	0.4 wks	\$0.00	\$0.00	\$1,280.00	\$1,280.00	\$256.00	\$384.00	\$1,920.0
		SLAC Mech. Fab: Machine Shop		B&H	0	0.4 wks	\$0.00	\$0.00	\$0.00	\$1,280.00	\$0.00	\$0.00	\$0.0
808	1.3.2.5.9.13	Beam covers	SLAC	M&S	2	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
		SLAC M&S Total		M&S	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
5809	1.3.2.5.10	High Power Pulse Compressor			0	4 wks	\$0.00	\$7,700.00	\$13,600.00	\$21,300.00	\$3,182.00	\$5,675.30	\$30,157.3
810	1.3.2.5.10.1	High Power Pulse Compressor	SLAC	ED&I	2	2 wks	\$0.00	\$0.00	\$6,800.00	\$6,800.00	\$1,360.00	\$2,040.00	\$10,200.0
		SLAC Physicist -Scientist		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$6,800.00	\$0.00	\$0.00	\$0.0
5811	1.3.2.5.10.1	High Power Pulse Compressor	SLAC	ED&I	2	2 wks	\$0.00	\$0.00	\$6,800.00	\$6,800.00	\$1,360.00	\$2,040.00	\$10,200.0
		SLAC Physicist - Senior Scientist		ED&I	0	2 wks	\$0.00	\$0.00	\$0.00	\$6,800.00	\$0.00	\$0.00	\$0.0
812	1.3.2.5.10.1	Gratings, 2x4 in, 1700 l/mm, 780 nm	SLAC	M&S	1	0 wks	\$0.00	\$1,200.00	\$0.00	\$1,200.00	\$72.00	\$190.80	\$1,462.8
		SLAC M&S Total		M&S	0	1,200	\$0.00	\$0.00	\$0.00	\$1,200.00	\$0.00	\$0.00	\$0.0
5813	1.3.2.5.10.2	Grating mounts with tip/tilt/azim knobs	SLAC	M&S	1	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$318.00	\$2,438.0
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.0
5814	1.3.2.5.10.3	Prisms, 3x3 in, coated 780 nm	SLAC	M&S	2	0 wks	\$0.00	\$1,500.00	\$0.00	\$1,500.00	\$90.00	\$397.50	\$1,987.5
		SLAC M&S Total		M&S	0	1,500	\$0.00	\$0.00	\$0.00	\$1,500.00	\$0.00	\$0.00	\$0.0
5815	1.3.2.5.10.4	Prism mounts with tip/tilt	SLAC	M&S	2	0 wks	\$0.00	\$500.00	\$0.00	\$500.00	\$30.00	\$132.50	\$662.5
		SLAC M&S Total		M&S	0	500	\$0.00	\$0.00	\$0.00	\$500.00	\$0.00	\$0.00	\$0.0
5816	1.3.2.5.10.5	Translation stages with micrometer	SLAC	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$265.00	\$1,325.0
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.0
5817	1.3.2.5.10.6	Optical rail (24 inch)	SLAC	M&S	2	0 wks	\$0.00	\$300.00	\$0.00	\$300.00	\$18.00	\$79.50	\$397.5
		SLAC M&S Total		M&S	0	300	\$0.00	\$0.00	\$0.00	\$300.00	\$0.00	\$0.00	\$0.0
818	1.3.2.5.10.7	Planar mirrors/splitters	SLAC	M&S	1	0 wks	\$0.00	\$600.00	\$0.00	\$600.00	\$36.00	\$95.40	\$731.4
		SLAC M&S Total		M&S	0	600	\$0.00	\$0.00	\$0.00	\$600.00	\$0.00	\$0.00	\$0.0
819	1.3.2.5.10.8	Mirror mounts	SLAC	M&S	1	0 wks	\$0.00	\$400.00	\$0.00	\$400.00	\$24.00	\$63.60	\$487.6
		SLAC M&S Total		M&S	0	400	\$0.00	\$0.00	\$0.00	\$400.00	\$0.00	\$0.00	\$0.0
820	1.3.2.5.10.9	Alignment irises	SLAC	M&S	2	0 wks	\$0.00	\$200.00	\$0.00	\$200.00	\$12.00	\$53.00	\$265.0
		SLAC M&S Total		M&S	0	200	\$0.00	\$0.00	\$0.00	\$200.00	\$0.00	\$0.00	\$0.0
5821	1.3.2.5.10.10	Post collars	SLAC	M&S	2	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
		SLAC M&S Total		M&S	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0

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ID		Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
5822	1.3.2.5.10.11	Posts	SLAC	M&S	2	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
		SLAC M&S Total		M&S	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
5823	1.3.2.5.10.12	Post Holders	SLAC	M&S	2	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
		SLAC M&S Total		M&S	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
5824	1.3.2.5.10.13	Post Holder Bases	SLAC	M&S	2	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
		SLAC M&S Total		M&S	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
5825	1.3.2.5.10.14	Beam covers	SLAC	B&H	0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
		SLAC Mech. Fab: Machine Shop		B&H	0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
5826	1.3.2.5.11	Optical Transport			0	7.5 wks	\$0.00	\$22,000.00	\$25,500.00	\$47,500.00	\$6,420.00	\$13,056.00	\$66,976.00
5827	1.3.2.5.11.1	Optical Transport	SLAC	ED&I	2	2.5 wks	\$0.00	\$0.00	\$8,500.00	\$8,500.00	\$1,700.00	\$2,550.00	\$12,750.0
		SLAC Physicist - Senior Scientist		ED&I	0	2.5 wks	\$0.00	\$0.00	\$0.00	\$8,500.00	\$0.00	\$0.00	\$0.00
5828	1.3.2.5.11.1	Optical Transport	SLAC	ED&I	2	5 wks	\$0.00	\$0.00	\$17,000.00	\$17,000.00	\$3,400.00		\$25,500.00
5020	1.3.2.5.11.1	· · ·	SLAC										
		SLAC Physicist -Scientist		ED&I	0	5 wks	\$0.00	\$0.00	\$0.00	\$17,000.00	\$0.00	\$0.00	\$0.00
5829	1.3.2.5.11.1	Spherical Lenses (uv)	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219.0
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.00
5830	1.3.2.5.11.2	Transport tube windows	SLAC	M&S	1	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$318.00	\$2,438.0
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.00
5831	1.3.2.5.11.3	Diode vacuum pump	SLAC	M&S	2	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$180.00	\$795.00	\$3,975.0
		SLAC M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0.00
5832	1.3.2.5.11.4	lon pump controller and cable	SLAC	M&S	2	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$180.00	\$795.00	\$3,975.0
		SLAC M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0.00
5833	1.3.2.5.11.5	Misc vacuum hardware	SLAC	M&S	2	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
		SLAC M&S Total		M&S	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
5834	1.3.2.5.11.6	Drilling penetration	SLAC	M&S	2	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
		SLAC M&S Total		M&S	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
5835	1.3.2.5.11.7	Installation of transport tube	SLAC	M&S	1	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	1.5.2.5.11.7	SLAC M&S Total	SLAG	M&S	0		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
					0	0							
5836	1.3.2.5.11.8	, ,	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219.0
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.00
5837	1.3.2.5.11.9	Spherical lenses (ir)	SLAC	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$265.00	\$1,325.0
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.00
5838	1.3.2.5.11.10	Spherical lens mounts	SLAC	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$265.00	\$1,325.0
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.00
5839	1.3.2.5.11.11	Planar mirrors/splitters	SLAC	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$530.00	\$2,650.0
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.00

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ID 5840	CWBS 1.3.2.5.11.12	Task Name Mirror mounts	OBS SLAC	PHASE M&S	Risk 2	Units 0 wks	PED (Direct) \$0.00	M&S (Direct) \$1,000.00	Labor (Direct) \$0.00	Direct Cost \$1,000.00	Overhead Cost \$60.00	Contingency Cost \$265.00	Total Cost \$1,325.0
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.0
0/1	1.3.2.5.11.13		SLAC	M&S	2	0 wks	\$0.00	\$2,000.00	\$0.00	\$2,000.00	\$120.00	\$530.00	\$2,650.0
7041	1.3.2.3.11.13	-	SLAC		-								
		SLAC M&S Total		M&S	0	2,000	\$0.00	\$0.00	\$0.00	\$2,000.00	\$0.00	\$0.00	\$0.0
842	1.3.2.5.11.14	Power/energy meter (2 ch)	SLAC	M&S	2	0 wks	\$0.00	\$4,000.00	\$0.00	\$4,000.00	\$240.00	\$1,060.00	\$5,300.0
		SLAC M&S Total		M&S	0	4,000	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$0.0
5843	1.3.2.5.11.15	Posts	SLAC	M&S	2	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
		SLAC M&S Total		M&S	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
5844	1.3.2.5.11.16	Post Holders	SLAC	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$265.00	\$1,325.0
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.0
5845	1.3.2.5.11.17	Post Holder Bases	SLAC	M&S	1	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
		SLAC M&S Total		M&S	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
2016	1.3.2.5.11.18		SLAC	M&S	1	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
0040	1.3.2.3.11.16	-	SLAC		'								
		SLAC M&S Total		M&S	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
5847	1.3.2.5.11.19	Post collars	SLAC	M&S	1	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
		SLAC M&S Total		M&S	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
848	1.3.2.5.12	Laser Support Systems & Miscellaneous Items			0	4 wks	\$0.00	\$133,000.00	\$10,397.60	\$143,397.60	\$10,059.52	\$38,046.28	\$191,503.4
849	1.3.2.5.12.1	Optical tables for clean room	SLAC	M&S	2	0 wks	\$0.00	\$42,000.00	\$0.00	\$42,000.00	\$2,520.00	\$11,130.00	\$55,650.0
		SLAC M&S Total		M&S	0	42,000	\$0.00	\$0.00	\$0.00	\$42,000.00	\$0.00	\$0.00	\$0.0
5850	1.3.2.5.12.2	Table enclosures	SLAC	M&S	2	0 wks	\$0.00	\$5,000.00	\$0.00	\$5,000.00	\$300.00	\$1,325.00	\$6,625.0
		SLAC M&S Total		M&S	0	5,000	\$0.00	\$0.00	\$0.00	\$5,000.00	\$0.00	\$0.00	\$0.0
5851	1.3.2.5.12.3	Optical table next to the RF gun	SLAC	M&S	2	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$180.00	\$795.00	\$3,975.0
	1.0.2.0.12.0	SLAC M&S Total	02.10	M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0.0
5852	1.3.2.5.12.4		SLAC	B&H	2	2 wks	\$0.00	\$0.00	\$6,400.00	\$6,400.00	\$1,280.00	\$1,920.00	\$9,600.0
		SLAC Mech. Fab: Machine Shop		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$6,400.00	\$0.00	\$0.00	\$0.0
853	1.3.2.5.12.5	Racks and other furniture	SLAC	B&H	2	2 wks	\$0.00	\$0.00	\$3,997.60	\$3,997.60	\$799.52	\$1,199.28	\$5,996.4
		SLAC Mech. Fab: Assembly Tech		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$3,997.60	\$0.00	\$0.00	\$0.0
854	1.3.2.5.12.7	Elevated instrumentation shelves (on optical tables)	SLAC	M&S	2	0 wks	\$0.00	\$8,000.00	\$0.00	\$8,000.00	\$480.00	\$2,120.00	\$10,600.0
		SLAC M&S Total		M&S	0	8,000	\$0.00	\$0.00	\$0.00	\$8,000.00	\$0.00	\$0.00	\$0.0
855	1.3.2.5.12.8	Vidmar cabinets (Stanley)	SLAC	M&S	2	0 wks	\$0.00	\$12,000.00	\$0.00	\$12,000.00	\$720.00	\$3,180.00	\$15,900.0
		SLAC M&S Total		M&S	0	12,000	\$0.00	\$0.00	\$0.00	\$12,000.00	\$0.00	\$0.00	\$0.0
856	1.3.2.5.12.9		SLAC	M&S	2	0 wks	\$0.00	\$10,000.00	\$0.00	\$10,000.00	\$600.00	\$2,650.00	\$13,250.0
		SLAC M&S Total	32.0	M&S	0	10,000	\$0.00	\$0.00	\$0.00	\$10,000.00	\$0.00	\$0.00	\$0.0
0.5-3	100510		6: 15				, , , , ,		,				
857	1.3.2.5.12.10		SLAC	M&S	2	0 wks	\$0.00	\$4,000.00	\$0.00	\$4,000.00	\$240.00	\$1,060.00	\$5,300.0
	1	SLAC M&S Total		M&S	0	4,000	\$0.00	\$0.00	\$0.00	\$4,000.00	\$0.00	\$0.00	\$0.0

ID		Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
858	1.3.2.5.12.11	Microscope (stereo)	SLAC	M&S	2	0 wks	\$0.00	\$38,000.00	\$0.00	\$38,000.00	\$2,280.00	\$10,070.00	\$50,350.
		SLAC M&S Total		M&S	0	38,000	\$0.00	\$0.00	\$0.00	\$38,000.00	\$0.00	\$0.00	\$0.0
859	1.3.2.5.12.12	IR sensor cards	SLAC	M&S	1	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$180.00	\$477.00	\$3,657.
		SLAC M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0.0
860	1.3.2.5.12.13	Latex gloves & finger cots	SLAC	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$265.00	\$1,325.
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.
861	1.3.2.5.12.14	Microdusters	SLAC	M&S	2	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
		SLAC M&S Total		M&S	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
862	1.3.2.5.12.15	Solvents	SLAC	M&S	2	0 wks	\$0.00	\$6,000.00	\$0.00	\$6,000.00	\$360.00	\$1,590.00	\$7,950
		SLAC M&S Total		M&S	0	6,000	\$0.00	\$0.00	\$0.00	\$6,000.00	\$0.00	\$0.00	\$0.
363	1.3.2.5.12.16	Clean room attire (hats, smocks, booties)	SLAC	M&S	2	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$265.00	\$1,325
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.
364	1.3.2.5.12.17	UV diagnostic paper & lens tissue	SLAC	M&S	2	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
		SLAC M&S Total		M&S	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
365	1.3.2.5.12.18	Burn paper	SLAC	M&S	2	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
		SLAC M&S Total		M&S	0	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
366	1.3.2.6	PPS/MPS Systems			0	132 wks	\$0.00	\$294,000.00	\$281,974.40	\$575,974.40	\$74,034.88	\$106,657.12	\$756,666
867	1.3.2.6.1	PPS System			0	83 wks	\$0.00	\$144,000.00	\$172,854.40	\$316,854.40	\$43,210.88	\$73,268.32	\$433,333.
868	1.3.2.6.1.1	Control Racks	SLAC		0	22 wks	\$0.00	\$8,000.00	\$50,176.00	\$58,176.00	\$10,515.20	\$15,052.80	\$83,744.
							, , , , ,			. ,			
369	1.3.2.6.1.1	Control Racks	SLAC	M&S	0	0 wks	\$0.00	\$8,000.00	\$0.00	\$8,000.00	\$480.00	\$0.00	\$8,480
		SLAC M&S Total		M&S	0	8,000	\$0.00	\$0.00	\$0.00	\$8,000.00	\$0.00	\$0.00	\$0
370	1.3.2.6.1.1	Fabrication	SLAC	B&H	2	6 wks	\$0.00	\$0.00	\$10,521.60	\$10,521.60	\$2,104.32	\$3,156.48	\$15,782
		SLAC PCD:Technician		B&H	0	6 wks	\$0.00	\$0.00	\$0.00	\$10,521.60	\$0.00	\$0.00	\$0
371	1.3.2.6.1.1	Installation	SLAC	B&H	2	12 wks	\$0.00	\$0.00	\$32,640.00	\$32,640.00	\$6,528.00	\$9,792.00	\$48,960
		SLAC T&M Crafts - Union Electrician		B&H	0	12 wks	\$0.00	\$0.00	\$0.00	\$32,640.00	\$0.00	\$0.00	\$0
372	1.3.2.6.1.1	Test	SLAC	B&H	2	4 wks	\$0.00	\$0.00	\$7,014.40	\$7,014.40	\$1,402.88	\$2,104.32	\$10,521
		SLAC Controls: Technician		B&H	0	4 wks	\$0.00	\$0.00	\$0.00	\$7,014.40	\$0.00	\$0.00	\$0
873	1.3.2.6.1.2	HPS Control	SLAC		0	18 wks	\$0.00	\$64,000.00	\$32,777.60	\$96,777.60	\$10,395.52	\$26,793.28	\$133,966
374	1.3.2.6.1.2	HPS Control	SLAC	M&S	2	0 wks	\$0.00	\$64,000.00	\$0.00	\$64,000.00	\$3,840.00	\$16,960.00	\$84,800
		SLAC M&S Total		M&S	0	64,000	\$0.00	\$0.00	\$0.00	\$64,000.00	\$0.00	\$0.00	\$0
	1.3.2.6.1.2	Fabrication	SLAC	B&H	2	15 wks	\$0.00	\$0.00	\$26,304.00	\$26,304.00	\$5,260.80	\$7,891.20	\$39,456
375		SLAC PCD:Technician		B&H	0	15 wks	\$0.00	\$0.00	\$0.00	\$26,304.00	\$0.00	\$0.00	\$0
875		I		B&H	2	2 wks	\$0.00	\$0.00	\$4,720.00	\$4,720.00	\$944.00	\$1,416.00	\$7,080
	1.3.2.6.1.2	Installation	SLAC	B&H	-	2 11110							
875 876	1.3.2.6.1.2	Installation SLAC T&M Crafts - Union Equip. Op.	SLAC	B&H B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,720.00	\$0.00	\$0.00	\$0.

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ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
		SLAC Controls: Technician		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$1,753.60	\$0.00	\$0.00	\$0.0
878	1.3.2.6.1.3	HPS Fan-in	SLAC		0	8 wks	\$0.00	\$12,000.00	\$14,995.20	\$26,995.20	\$3,719.04	\$8,950.56	\$39,664.8
879	1.3.2.6.1.3	HPS Fan-in	SLAC	M&S	3	0 wks	\$0.00	\$12,000.00	\$0.00	\$12,000.00	\$720.00	\$4,452.00	\$17,172.
		SLAC M&S Total		M&S	0	12,000	\$0.00	\$0.00	\$0.00	\$12,000.00	\$0.00	\$0.00	\$0.0
880	1.3.2.6.1.3	Fabrication	SLAC	B&H	2	6 wks	\$0.00	\$0.00	\$10,521.60	\$10,521.60	\$2,104.32	\$3,156.48	\$15,782.
		SLAC PCD:Technician		B&H	0	6 wks	\$0.00	\$0.00	\$0.00	\$10,521.60	\$0.00	\$0.00	\$0.
881	1.3.2.6.1.3	Installation	SLAC	B&H	2	1 wk	\$0.00	\$0.00	\$2,720.00	\$2,720.00	\$544.00	\$816.00	\$4,080
		SLAC T&M Crafts - Union Electrician		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,720.00	\$0.00	\$0.00	\$0.
882	1.3.2.6.1.3	Test	SLAC	B&H	2	1 wk	\$0.00	\$0.00	\$1,753.60	\$1,753.60	\$350.72	\$526.08	\$2,630
		SLAC Controls: Technician		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$1,753.60	\$0.00	\$0.00	\$0.
883	1.3.2.6.1.4	PPS Junction Box	SLAC		0	11 wks	\$0.00	\$12,000.00	\$23,155.20	\$35,155.20	\$5,351.04	\$6,946.56	\$47,452.
884	1.3.2.6.1.4	PPS Junction Box	SLAC	M&S	0	0 wks	\$0.00	\$12,000.00	\$0.00	\$12,000.00	\$720.00	\$0.00	\$12,720
		SLAC M&S Total		M&S	0	12,000	\$0.00	\$0.00	\$0.00	\$12,000.00	\$0.00	\$0.00	\$0
885	1.3.2.6.1.4	Fabrication	SLAC	B&H	2	6 wks	\$0.00	\$0.00	\$10,521.60	\$10,521.60	\$2,104.32	\$3,156.48	\$15,782
		SLAC PCD:Technician		B&H	0	6 wks	\$0.00	\$0.00	\$0.00	\$10,521.60	\$0.00	\$0.00	\$0
386	1.3.2.6.1.4	Installation	SLAC	B&H	2	4 wks	\$0.00	\$0.00	\$10,880.00	\$10,880.00	\$2,176.00	\$3,264.00	\$16,320
		SLAC T&M Crafts - Union Electrician		B&H	0	4 wks	\$0.00	\$0.00	\$0.00	\$10,880.00	\$0.00	\$0.00	\$0
387	1.3.2.6.1.4	Test	SLAC	B&H	2	1 wk	\$0.00	\$0.00	\$1,753.60	\$1,753.60	\$350.72	\$526.08	\$2,630
		SLAC Controls: Technician		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$1,753.60	\$0.00	\$0.00	\$0
888	1.3.2.6.1.5	Search Reset System	SLAC		0	7 wks	\$0.00	\$20,000.00	\$15,174.40	\$35,174.40	\$4,234.88	\$4,552.32	\$43,961
889	1.3.2.6.1.5	Search Reset System	SLAC	M&S	0	0 wks	\$0.00	\$20,000.00	\$0.00	\$20,000.00	\$1,200.00	\$0.00	\$21,200
		SLAC M&S Total		M&S	0	20,000	\$0.00	\$0.00	\$0.00	\$20,000.00	\$0.00	\$0.00	\$0
890	1.3.2.6.1.5	Fabrication	SLAC	B&H	2	2 wks	\$0.00	\$0.00	\$3,507.20	\$3,507.20	\$701.44	\$1,052.16	\$5,260
		SLAC PCD:Technician		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$3,507.20	\$0.00	\$0.00	\$0
891	1.3.2.6.1.5	Installation	SLAC	B&H	2	3 wks	\$0.00	\$0.00	\$8,160.00	\$8,160.00	\$1,632.00	\$2,448.00	\$12,240
	1.0.2.0.1.0	SLAC T&M Crafts - Union Electrician	02/10	B&H	0	3 wks	\$0.00	\$0.00	\$0.00	\$8,160.00	\$0.00	\$0.00	\$0
892	1.3.2.6.1.5		SLAC	B&H	2	2 wks	\$0.00	\$0.00	\$3,507.20	\$3,507.20	\$701.44	\$1,052.16	\$5,260
	1.0.2.0.1.0	SLAC Controls: Technician	ODAG	B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$3,507.20	\$0.00	\$0.00	\$0
893	1.3.2.6.1.6	Burn Thru Monitor	SLAC	Darr	0	4 wks	\$0.00	\$12,000.00	\$8,947.20	\$20,947.20	\$2,509.44	\$2,684.16	\$26,140
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394	1.3.2.6.1.6		SLAC	M&S	0	0 wks	\$0.00	\$12,000.00	\$0.00	\$12,000.00	\$720.00	\$0.00	\$12,720
		SLAC M&S Total		M&S	0	12,000	\$0.00	\$0.00	\$0.00	\$12,000.00	\$0.00	\$0.00	\$0
895	1.3.2.6.1.6		SLAC	B&H	2	2 wks	\$0.00	\$0.00	\$3,507.20	\$3,507.20	\$701.44	\$1,052.16	\$5,260
		SLAC PCD:Technician		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$3,507.20	\$0.00	\$0.00	\$0
896	1.3.2.6.1.6	Installation	SLAC	B&H	2	2 wks	\$0.00	\$0.00	\$5,440.00	\$5,440.00	\$1,088.00	\$1,632.00	\$8,160
		SLAC T&M Crafts - Union Electrician		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$5,440.00	\$0.00	\$0.00	\$0.

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ID		Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
5897	1.3.2.6.1.6	Test	SLAC	B&H	2	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.0
		SLAC Controls: Technician		B&H	0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
5898	1.3.2.6.1.7	Hutch Summary	SLAC		0	6 wks	\$0.00	\$6,000.00	\$11,488.00	\$17,488.00	\$2,657.60	\$3,446.40	\$23,592.00
5899	1.3.2.6.1.7	Hutch Summary	SLAC	M&S	0	0 wks	\$0.00	\$6,000.00	\$0.00	\$6,000.00	\$360.00	\$0.00	\$6,360.0
		SLAC M&S Total		M&S	0	6,000	\$0.00	\$0.00	\$0.00	\$6,000.00	\$0.00	\$0.00	\$0.00
5900	1.3.2.6.1.7	Fabrication	SLAC	B&H	2	4 wks	\$0.00	\$0.00	\$7,014.40	\$7,014.40	\$1,402.88	\$2,104.32	\$10,521.6
		SLAC PCD:Technician		B&H	0	4 wks	\$0.00	\$0.00	\$0.00	\$7,014.40	\$0.00	\$0.00	\$0.00
5901	1.3.2.6.1.7	Installation	SLAC	B&H	2	1 wk	\$0.00	\$0.00	\$2,720.00	\$2,720.00	\$544.00	\$816.00	\$4,080.0
		SLAC T&M Crafts - Union Electrician		В&Н	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,720.00	\$0.00	\$0.00	\$0.00
5902	1.3.2.6.1.7	Test	SLAC	B&H	2	1 wk	\$0.00	\$0.00	\$1,753.60	\$1,753.60	\$350.72	\$526.08	\$2,630.4
		SLAC Controls: Technician		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$1,753.60	\$0.00	\$0.00	\$0.00
5903	1.3.2.6.1.8	Pneumatic Controls	SLAC		0	7 wks	\$0.00	\$10,000.00	\$16,140.80	\$26,140.80	\$3,828.16	\$4,842.24	\$34,811.20
5904	1.3.2.6.1.8	Pneumatic Controls	SLAC	M&S	0	0 wks	\$0.00	\$10,000.00	\$0.00	\$10,000.00	\$600.00	\$0.00	\$10,600.0
		SLAC M&S Total		M&S	0	10,000	\$0.00	\$0.00	\$0.00	\$10,000.00	\$0.00	\$0.00	\$0.00
5905	1.3.2.6.1.8	Fabrication	SLAC	B&H	2	2 wks	\$0.00	\$0.00	\$3,507.20	\$3,507.20	\$701.44	\$1,052.16	\$5,260.8
		SLAC PCD:Technician		B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$3,507.20	\$0.00	\$0.00	\$0.00
906	1.3.2.6.1.8	Installation	SLAC	B&H	2	4 wks	\$0.00	\$0.00	\$10,880.00	\$10,880.00	\$2,176.00	\$3,264.00	\$16,320.0
		SLAC T&M Crafts - Union Electrician		B&H	0	4 wks	\$0.00	\$0.00	\$0.00	\$10,880.00	\$0.00	\$0.00	\$0.00
5907	1.3.2.6.1.8	Test	SLAC	B&H	2	1 wk	\$0.00	\$0.00	\$1,753.60	\$1,753.60	\$350.72	\$526.08	\$2,630.4
		SLAC Controls: Technician		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$1,753.60	\$0.00	\$0.00	\$0.00
5908	1.3.2.6.2	MPS System			0	49 wks	\$0.00	\$150,000.00	\$109,120.00	\$259,120.00	\$30,824.00	\$33,388.80	\$323,332.80
5909	1.3.2.6.2.1	Control Racks	SLAC		2	22 wks	\$0.00	\$8,000.00	\$50,176.00	\$58,176.00	\$10,515.20	\$15,052.80	\$83,744.00
5910	1.3.2.6.2.1	Control Racks	SLAC	M&S	0	0 wks	\$0.00	\$8,000.00	\$0.00	\$8,000.00	\$480.00	\$0.00	\$8,480.0
		SLAC M&S Total		M&S	0	8,000	\$0.00	\$0.00	\$0.00	\$8,000.00	\$0.00	\$0.00	\$0.00
911	1.3.2.6.2.1	Fabrication	SLAC	B&H	2	6 wks	\$0.00	\$0.00	\$10,521.60	\$10,521.60	\$2,104.32	\$3,156.48	\$15,782.4
		SLAC PCD:Technician		B&H	0	6 wks	\$0.00	\$0.00	\$0.00	\$10,521.60	\$0.00	\$0.00	\$0.00
912	1.3.2.6.2.1	Installation	SLAC	B&H	2	12 wks	\$0.00	\$0.00	\$32,640.00	\$32,640.00	\$6,528.00	\$9,792.00	\$48,960.0
		SLAC T&M Crafts - Union Electrician		B&H	0	12 wks	\$0.00	\$0.00	\$0.00	\$32,640.00	\$0.00	\$0.00	\$0.00
5913	1.3.2.6.2.1	Test	SLAC	B&H	2	4 wks	\$0.00	\$0.00	\$7,014.40	\$7,014.40	\$1,402.88	\$2,104.32	\$10,521.6
		SLAC Controls: Technician		B&H	0	4 wks	\$0.00	\$0.00	\$0.00	\$7,014.40	\$0.00	\$0.00	\$0.00
5914	1.3.2.6.2.2	PLC CONTROLS	SLAC		2	14 wks	\$0.00	\$60,000.00	\$30,348.80	\$90,348.80	\$9,669.76	\$9,104.64	\$109,123.20
5915	1.3.2.6.2.2	PLC Controld	SLAC	M&S	0	0 wks	\$0.00	\$60,000.00	\$0.00	\$60,000.00	\$3,600.00	\$0.00	\$63,600.0
-		SLAC M&S Total		M&S	0	60,000	\$0.00	\$0.00	\$0.00	\$60,000.00	\$0.00	\$0.00	\$0.00
916	1.3.2.6.2.2	Fabrication	SLAC	B&H	2	6 wks	\$0.00	\$0.00	\$10,521.60	\$10,521.60	\$2,104.32	\$3,156.48	\$15,782.4
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ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
917	1.3.2.6.2.2	Installation	SLAC	B&H	2	6 wks	\$0.00	\$0.00	\$16,320.00	\$16,320.00	\$3,264.00	\$4,896.00	\$24,480.
		SLAC T&M Crafts - Union Electrician		B&H	0	6 wks	\$0.00	\$0.00	\$0.00	\$16,320.00	\$0.00	\$0.00	\$0.0
918	1.3.2.6.2.2	Test	SLAC	B&H	2	2 wks	\$0.00	\$0.00	\$3,507.20	\$3,507.20	\$701.44	\$1,052.16	\$5,260.
		SLAC Controls: Technician		В&Н	0	2 wks	\$0.00	\$0.00	\$0.00	\$3,507.20	\$0.00	\$0.00	\$0.
919	1.3.2.6.2.3	VACUUM MONITORING	SLAC		2	4 wks	\$0.00	\$70,000.00	\$8,947.20	\$78,947.20	\$5,989.44	\$3,336.96	\$88,273.
920	1.3.2.6.2.3	Vacuum Monitoring	SLAC	M&S	0	0 wks	\$0.00	\$70,000.00	\$0.00	\$70,000.00	\$4,200.00	\$0.00	\$74,200
		SLAC M&S Total		M&S	0	70,000	\$0.00	\$0.00	\$0.00	\$70,000.00	\$0.00	\$0.00	\$0
921	1.3.2.6.2.3	Fabrication	SLAC	B&H	2	1 wk	\$0.00	\$0.00	\$1,753.60	\$1,753.60	\$350.72	\$526.08	\$2,630
		SLAC PCD:Technician		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$1,753.60	\$0.00	\$0.00	\$0
922	1.3.2.6.2.3	Installation	SLAC	B&H	3	2 wks	\$0.00	\$0.00	\$5,440.00	\$5,440.00	\$1,088.00	\$2,284.80	\$8,812
	110.2.0.2.0	SLAC T&M Crafts - Union Electrician	02.10	B&H	0	2 wks	\$0.00	\$0.00	\$0.00	\$5,440.00	\$0.00	\$0.00	\$0
200	400000		01.40				,	, , , , ,	,,,,,	, , , , , , , ,	,	,	
923	1.3.2.6.2.3	Test	SLAC	B&H	2	1 wk	\$0.00	\$0.00	\$1,753.60	\$1,753.60	\$350.72	\$526.08	\$2,630
		SLAC Controls: Technician		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$1,753.60	\$0.00	\$0.00	\$0
924	1.3.2.6.2.4	PNEUMATICS	SLAC		2	9 wks	\$0.00	\$12,000.00	\$19,648.00	\$31,648.00	\$4,649.60	\$5,894.40	\$42,192
925	1.3.2.6.2.4	Pneumatics	SLAC	M&S	0	0 wks	\$0.00	\$12,000.00	\$0.00	\$12,000.00	\$720.00	\$0.00	\$12,720
		SLAC M&S Total		M&S	0	12,000	\$0.00	\$0.00	\$0.00	\$12,000.00	\$0.00	\$0.00	\$0
926	1.3.2.6.2.4	Fabrication	SLAC	B&H	2	4 wks	\$0.00	\$0.00	\$7,014.40	\$7,014.40	\$1,402.88	\$2,104.32	\$10,52
		SLAC PCD:Technician		В&Н	0	4 wks	\$0.00	\$0.00	\$0.00	\$7,014.40	\$0.00	\$0.00	\$0
927	1.3.2.6.2.4	Installation	SLAC	B&H	2	4 wks	\$0.00	\$0.00	\$10,880.00	\$10,880.00	\$2,176.00	\$3,264.00	\$16,320
		SLAC T&M Crafts - Union Electrician		В&Н	0	4 wks	\$0.00	\$0.00	\$0.00	\$10,880.00	\$0.00	\$0.00	\$0
928	1.3.2.6.2.4	Test	SLAC	В&Н	2	1 wk	\$0.00	\$0.00	\$1,753.60	\$1,753.60	\$350.72	\$526.08	\$2,630
		SLAC Controls: Technician		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$1,753.60	\$0.00	\$0.00	\$0
929	1.3.3	Installation & Alignment			0	84 wks	\$0.00	\$0.00	\$182,153.80	\$182,153.80	\$36,430.76	\$76,504.60	\$295,089
930	1.3.3.1	Overall survey			0	26 wks	\$0.00	\$0.00	\$59,280.00	\$59,280.00	\$11,856.00	\$24,897.60	\$96,033
931	1.3.3.1.1	locate monuments	SLAC	B&H	3	26 wks	\$0.00	\$0.00	\$59,280.00	\$59,280.00	\$11,856.00	\$24,897.60	\$96,033
		SLAC Metrology:Eng.& Surveyors		В&Н	0	26 wks	\$0.00	\$0.00	\$0.00	\$59,280.00	\$0.00	\$0.00	\$0
932	1.3.3.2	Componenet stand			0	25.5 wks	\$0.00	\$0.00	\$50,969.40	\$50,969.40	\$10,193.88	\$21,407.15	\$82,570
933	1.3.3.2.1	layout hole pattern	SLAC	B&H	3	3 wks	\$0.00	\$0.00	\$5,996.40	\$5,996.40	\$1,199.28	\$2,518.49	\$9,714
		SLAC Mech. Fab: Assembly Tech		B&H	0	3 wks	\$0.00	\$0.00	\$0.00	\$5,996.40	\$0.00	\$0.00	\$0
934	1.3.3.2.2	check hole pattern	SLAC	B&H	3	2.5 wks	\$0.00	\$0.00	\$4,997.00	\$4,997.00	\$999.40	\$2,098.74	\$8,095
	1.3.3.2.2	·	SLAG	B&H			\$0.00		\$0.00	\$4,997.00	·	\$0.00	\$0,090
0.5	10000	SLAC Mech. Fab: Assembly Tech	01.43		0	2.5 wks	,	\$0.00	,,,,,	, ,	\$0.00	,	
935	1.3.3.2.3	drill holes-insert anchors	SLAC	B&H	3	13 wks	\$0.00	\$0.00	\$25,984.40	\$25,984.40	\$5,196.88	\$10,913.45	\$42,09
		SLAC Mech. Fab: Assembly Tech		B&H	0	13 wks	\$0.00	\$0.00	\$0.00	\$25,984.40	\$0.00	\$0.00	\$0
936	1.3.3.2.4	move in, level bolt	SLAC	B&H	3	7 wks	\$0.00	\$0.00	\$13,991.60	\$13,991.60	\$2,798.32	\$5,876.47	\$22,666
		SLAC Mech. Fab: Assembly Tech		B&H	0	7 wks	\$0.00	\$0.00	\$0.00	\$13,991.60	\$0.00	\$0.00	\$0

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ID		Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
5937	1.3.3.3	Vacuum tank			0	23 wks	\$0.00	\$0.00	\$48,739.60	\$48,739.60	\$9,747.92	\$20,470.63	\$78,958.15
5938	1.3.3.3.1	alignment	SLAC	ED&I	3	1 wk	\$0.00	\$0.00	\$3,360.00	\$3,360.00	\$672.00	\$1,411.20	\$5,443.20
		SLAC Mechanical Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$3,360.00	\$0.00	\$0.00	\$0.00
5939	1.3.3.3.2	alignment	SLAC	B&H	3	5 wks	\$0.00	\$0.00	\$11,400.00	\$11,400.00	\$2,280.00	\$4,788.00	\$18,468.00
		SLAC Metrology:Eng.& Surveyors		B&H	0	5 wks	\$0.00	\$0.00	\$0.00	\$11,400.00	\$0.00	\$0.00	\$0.00
5940	1.3.3.3.3	connect/purge	SLAC	В&Н	3	8.5 wks	\$0.00	\$0.00	\$16,989.80	\$16,989.80	\$3,397.96	\$7,135.72	\$27,523.48
		SLAC Mech. Fab: Assembly Tech		В&Н	0	8.5 wks	\$0.00	\$0.00	\$0.00	\$16,989.80	\$0.00	\$0.00	\$0.00
5941	1.3.3.3.4	pump start/leak check	SLAC	B&H	3	8.5 wks	\$0.00	\$0.00	\$16,989.80	\$16,989.80	\$3,397.96	\$7,135.72	\$27,523.48
		SLAC Mech. Fab: Assembly Tech		В&Н	0	8.5 wks	\$0.00	\$0.00	\$0.00	\$16,989.80	\$0.00	\$0.00	\$0.00
5942	1.3.3.4	Optical element align			0	6 wks	\$0.00	\$0.00	\$14,644.80	\$14,644.80	\$2,928.96	\$6,150.82	\$23,724.58
5943	1.3.3.4.1	alignment	SLAC	ED&I	3	0.5 wks	\$0.00	\$0.00	\$1,446.60	\$1,446.60	\$289.32	\$607.57	\$2,343.49
		SLAC Klystron: Engineer		ED&I	0	0.5 wks	\$0.00	\$0.00	\$0.00	\$1,446.60	\$0.00	\$0.00	\$0.00
5944	1.3.3.4.2	alignment	SLAC	B&H	3	2 wks	\$0.00	\$0.00	\$4,560.00	\$4,560.00	\$912.00	\$1,915.20	\$7,387.20
		SLAC Metrology:Eng.& Surveyors		В&Н	0	2 wks	\$0.00	\$0.00	\$0.00	\$4,560.00	\$0.00	\$0.00	\$0.00
5945	1.3.3.4.3	alignment	SLAC	B&H	3	1 wk	\$0.00	\$0.00	\$1,998.80	\$1,998.80	\$399.76	\$839.50	\$3,238.06
		SLAC Mech. Fab: Assembly Tech		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$1,998.80	\$0.00	\$0.00	\$0.00
5946	1.3.3.4.4	calibrate/limits	SLAC	ED&I	3	1 wk	\$0.00	\$0.00	\$3,360.00	\$3,360.00	\$672.00	\$1,411.20	\$5,443.20
		SLAC Mechanical Engineer		ED&I	0	1 wk	\$0.00	\$0.00	\$0.00	\$3,360.00	\$0.00	\$0.00	\$0.00
5947	1.3.3.4.5	calibrate/limits	SLAC	B&H	3	1 wk	\$0.00	\$0.00	\$2,280.00	\$2,280.00	\$456.00		\$3,693.60
		SLAC Metrology:Eng.& Surveyors		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,280.00	\$0.00		\$0.00
5948	1.3.3.4.6	calibrate/limits	SLAC	B&H	3	0.5 wks	\$0.00	\$0.00	\$999.40	\$999.40	\$199.88		\$1,619.03
3946	1.3.3.4.0		SLAC		0		\$0.00		\$0.00				
		SLAC Mech. Fab: Assembly Tech		B&H		0.5 wks		\$0.00		\$999.40	\$0.00		\$0.00
5949	1.3.3.5	Precision alignment			0	3.5 wks	\$0.00	\$0.00	\$8,520.00	\$8,520.00	\$1,704.00	. ,	\$13,802.40
5950	1.3.3.5.1	alignment	SLAC	ED&I	3	0.5 wks	\$0.00	\$0.00	\$1,680.00	\$1,680.00	\$336.00	\$705.60	\$2,721.60
		SLAC Mechanical Engineer		ED&I	0	0.5 wks	\$0.00	\$0.00	\$0.00	\$1,680.00	\$0.00	\$0.00	\$0.00
5951	1.3.3.5.2	alignment	SLAC	B&H	3	3 wks	\$0.00	\$0.00	\$6,840.00	\$6,840.00	\$1,368.00	\$2,872.80	\$11,080.80
		SLAC Metrology:Eng.& Surveyors		B&H	0	3 wks	\$0.00	\$0.00	\$0.00	\$6,840.00	\$0.00	\$0.00	\$0.00
5952	1.4	Conventional Facilities			0	587 wks	\$2,826,672.00	\$26,634,000.00	\$339,600.00	\$29,800,272.00	\$1,977,894.40	\$6,132,276.89	\$37,910,443.29
5953	1.4.1	Injector facilities			0	154 wks	\$165,960.00	\$506,000.00	\$211,600.00	\$883,560.00	\$105,872.00	\$145,567.97	\$1,134,999.97
5954	1.4.1.1	PED			0	70 wks	\$165,960.00	\$0.00	\$0.00	\$165,960.00	\$33,192.00	\$29,872.80	\$229,024.80
5955	1.4.1.1.1	SEM Engineering	SLAC	ED&I	1	40 wks	\$96,960.00	\$0.00	\$0.00	\$96,960.00	\$19,392.00	\$17,452.80	\$133,804.80
		SLAC Site Engineering: Engineer		ED&I	0	40 wks	\$0.00	\$0.00	\$0.00	\$96,960.00	\$0.00	\$0.00	\$0.00
5956	1.4.1.1.2	Mechanical Design	SLAC	ED&I	1	30 wks	\$69,000.00	\$0.00	\$0.00	\$69,000.00	\$13,800.00	\$12,420.00	\$95,220.00
		SLAC Mech Drafting/Design		ED&I	0	30 wks	\$0.00	\$0.00	\$0.00	\$69,000.00	\$0.00	\$0.00	\$0.00
5957	1.4.1.2	Buildings			0	84 wks	\$0.00	\$506,000.00	\$211,600.00	\$717,600.00	\$72,680.00	\$115,695.17	\$905,975.17
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ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
958	1.4.1.2.1	Remove Shielding	SLAC	B&H	1	4 wks	\$0.00	\$0.00	\$5,120.00	\$5,120.00	\$1,024.00	\$921.60	\$7,065.6
		SLAC Site Engineering: Labor		B&H	0	4 wks	\$0.00	\$0.00	\$0.00	\$5,120.00	\$0.00	\$0.00	\$0.0
959	1.4.1.2.2	Sort/Transport Blks	SLAC	B&H	1	5 wks	\$0.00	\$0.00	\$11,800.00	\$11,800.00	\$2,360.00	\$2,124.00	\$16,284.0
		SLAC T&M Crafts - Union Equip. Op.		B&H	0	5 wks	\$0.00	\$0.00	\$0.00	\$11,800.00	\$0.00	\$0.00	\$0.0
960	1.4.1.2.3	Stack/pack Blks	SLAC	B&H	1	5 wks	\$0.00	\$0.00	\$6,400.00	\$6,400.00	\$1,280.00	\$1,152.00	\$8,832.0
\dashv		SLAC Site Engineering: Labor		B&H	0	5 wks	\$0.00	\$0.00	\$0.00	\$6,400.00	\$0.00	\$0.00	\$0.0
961	1.4.1.2.3	Stack/pack Blks	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219.
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.0
962	1.4.1.2.3	Layout/drill holes	SLAC	B&H	1	1 wk	\$0.00	\$0.00	\$2,360.00	\$2,360.00	\$472.00	\$424.80	\$3,256.
		SLAC T&M Crafts - Union Equip. Op.		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$2,360.00	\$0.00	\$0.00	\$0.0
963	1.4.1.2.3	Layout/drill holes	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219.0
\dashv		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.0
964	1.4.1.2.5	Seismic Bracing	SLAC	B&H	1	4 wks	\$0.00	\$0.00	\$8,640.00	\$8,640.00	\$1,728.00	\$1,555.20	\$11,923.
		SLAC T&M Crafts - Union Ironwork.		B&H	0	4 wks	\$0.00	\$0.00	\$0.00	\$8,640.00	\$0.00	\$0.00	\$0.0
965	1.4.1.2.5	Seismic Bracing	SLAC	M&S	1	0 wks	\$0.00	\$3,000.00	\$0.00	\$3,000.00	\$180.00	\$477.00	\$3,657.
		SLAC M&S Total		M&S	0	3,000	\$0.00	\$0.00	\$0.00	\$3,000.00	\$0.00	\$0.00	\$0.
966	1.4.1.2.6	Air Controls	SLAC	B&H	1	1 wk	\$0.00	\$0.00	\$3,200.00	\$3,200.00	\$640.00	\$576.00	\$4,416.
		SLAC Mech. Fab: Machine Shop		B&H	0	1 wk	\$0.00	\$0.00	\$0.00	\$3,200.00	\$0.00	\$0.00	\$0.
967	1.4.1.2.6	Air Controls	SLAC	M&S	1	0 wks	\$0.00	\$1,000.00	\$0.00	\$1,000.00	\$60.00	\$159.00	\$1,219.
		SLAC M&S Total		M&S	0	1,000	\$0.00	\$0.00	\$0.00	\$1,000.00	\$0.00	\$0.00	\$0.
968	1.4.1.2.7	Modify exist structure	SLAC	M&S	1	0 wks	\$0.00	\$100,000.00	\$0.00	\$100,000.00	\$6,000.00	\$15,900.00	\$121,900.
		SLAC M&S Total		M&S	0	100,000	\$0.00	\$0.00	\$0.00	\$100,000.00	\$0.00	\$0.00	\$0.
969	1.4.1.2.8	Laser Room	SLAC	M&S	1	0 wks	\$0.00	\$250,000.00	\$0.00	\$250,000.00	\$15,000.00	\$39,750.00	\$304,750.
		SLAC M&S Total		M&S	0	250,000	\$0.00	\$0.00	\$0.00	\$250,000.00	\$0.00	\$0.00	\$0.0
970	1.4.1.2.9	Utilities	SLAC	B&H	5	64 wks	\$0.00	\$0.00	\$174,080.00	\$174,080.00	\$34,816.00	\$28,487.57	\$237,383.5
		SLAC T&M Crafts - Union Electrician		B&H	0	64 wks	\$0.00	\$0.00	\$0.00	\$174,080.00	\$0.00	\$0.00	\$0.
971	1.4.1.2.9	Utilities	SLAC	M&S	1	0 wks	\$0.00	\$150,000.00	\$0.00	\$150,000.00	\$9,000.00	\$23,850.00	\$182,850.
		SLAC M&S Total		M&S	0	150,000	\$0.00	\$0.00	\$0.00	\$150,000.00	\$0.00	\$0.00	\$0.
972	1.4.2	Linac Facilities			0	120 wks	\$94,480.00	\$665,000.00	\$128,000.00	\$887,480.00	\$84,396.00	\$145,781.40	\$1,117,657.
73	1.4.2.1	PED			0	40 wks	\$94,480.00	\$0.00	\$0.00	\$94,480.00	\$18,896.00	\$17,006.40	\$130,382.
974	1.4.2.1.1	SEM Engineering	SLAC	ED&I	1	20 wks	\$48,480.00	\$0.00	\$0.00	\$48,480.00	\$9,696.00	\$8,726.40	\$66,902
		SLAC Site Engineering: Engineer		ED&I	0	20 wks	\$0.00	\$0.00	\$0.00	\$48,480.00	\$0.00	\$0.00	\$0.
975	1.4.2.1.2	Mechanical Design	SLAC	ED&I	1	20 wks	\$46,000.00	\$0.00	\$0.00	\$46,000.00	\$9,200.00	\$8,280.00	\$63,480.
		SLAC Mech Drafting/Design		ED&I	0	20 wks	\$0.00	\$0.00	\$0.00	\$46,000.00	\$0.00	\$0.00	\$0.
976	1.4.2.2	Buildings			0	80 wks	\$0.00	\$665,000.00	\$128,000.00	\$793,000.00	\$65,500.00	\$128,775.00	\$987,275.0

ID		Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
977	1.4.2.2.1	Building Electrical	SLAC	B&H	1	20 wks	\$0.00	\$0.00	\$32,000.00	\$32,000.00	\$6,400.00	\$5,760.00	\$44,160.
		SLAC Site Engineering: Plant Maint.		B&H	0	20 wks	\$0.00	\$0.00	\$0.00	\$32,000.00	\$0.00	\$0.00	\$0.
978	1.4.2.2.1	Building Electrical	SLAC	M&S	1	0 wks	\$0.00	\$350,000.00	\$0.00	\$350,000.00	\$21,000.00	\$55,650.00	\$426,650.
		SLAC M&S Total		M&S	0	350,000	\$0.00	\$0.00	\$0.00	\$350,000.00	\$0.00	\$0.00	\$0.
979	1.4.2.2.2	Building Water	SLAC	B&H	1	20 wks	\$0.00	\$0.00	\$32,000.00	\$32,000.00	\$6,400.00	\$5,760.00	\$44,160
		SLAC Site Engineering: Plant Maint.		B&H	0	20 wks	\$0.00	\$0.00	\$0.00	\$32,000.00	\$0.00	\$0.00	\$0.
980	1.4.2.2.2	Building Water	SLAC	M&S	1	0 wks	\$0.00	\$140,000.00	\$0.00	\$140,000.00	\$8,400.00	\$22,260.00	\$170,660
\dashv		SLAC M&S Total		M&S	0	140,000	\$0.00	\$0.00	\$0.00	\$140,000.00	\$0.00	\$0.00	\$0
981	1.4.2.2.3	Building HVAC	SLAC	B&H	1	20 wks	\$0.00	\$0.00	\$32,000.00	\$32,000.00	\$6,400.00	\$5,760.00	\$44,160
		SLAC Site Engineering: Plant Maint.		B&H	0	20 wks	\$0.00	\$0.00	\$0.00	\$32,000.00	\$0.00	\$0.00	\$0
982	1.4.2.2.3	Building HVAC	SLAC	M&S	1	0 wks	\$0.00	\$150,000.00	\$0.00	\$150,000.00	\$9,000.00	\$23,850.00	\$182,850
		SLAC M&S Total		M&S	0	150,000	\$0.00	\$0.00	\$0.00	\$150,000.00	\$0.00	\$0.00	\$0
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983	1.4.2.2.4	Building Special Systems	SLAC	B&H	1	20 wks	\$0.00	\$0.00	\$32,000.00	\$32,000.00	\$6,400.00	\$5,760.00	\$44,160
		SLAC Site Engineering: Plant Maint.		B&H	0	20 wks	\$0.00	\$0.00	\$0.00	\$32,000.00	\$0.00	\$0.00	\$0
984	1.4.2.2.4	Building Special Systems	SLAC	M&S	1	0 wks	\$0.00	\$25,000.00	\$0.00	\$25,000.00	\$1,500.00	\$3,975.00	\$30,475
		SLAC M&S Total		M&S	0	25,000	\$0.00	\$0.00	\$0.00	\$25,000.00	\$0.00	\$0.00	\$0
985	1.4.3	Undulator Facilities			0	60 wks	\$142,960.00	\$710,000.00	\$0.00	\$852,960.00	\$71,192.00	\$141,848.00	\$1,066,000
986	1.4.3.1	PED			0	60 wks	\$142,960.00	\$0.00	\$0.00	\$142,960.00	\$28,592.00	\$25,732.80	\$197,284
987	1.4.3.1.1	SEM Engineering	SLAC	ED&I	1	40 wks	\$96,960.00	\$0.00	\$0.00	\$96,960.00	\$19,392.00	\$17,452.80	\$133,804
\dashv		SLAC Site Engineering: Engineer		ED&I	0	40 wks	\$0.00	\$0.00	\$0.00	\$96,960.00	\$0.00	\$0.00	\$0
988	1.4.3.1.2	Mechanical Design	SLAC	ED&I	1	20 wks	\$46,000.00	\$0.00	\$0.00	\$46,000.00	\$9,200.00	\$8,280.00	\$63,480
		SLAC Mech Drafting/Design		ED&I	0	20 wks	\$0.00	\$0.00	\$0.00	\$46,000.00	\$0.00	\$0.00	\$0
989	1.4.3.2	Grounds Preparation			0	0 wks	\$0.00	\$150,000.00	\$0.00	\$150,000.00	\$9,000.00	\$23,850.00	\$182,850
990	1.4.3.2.1	Grounds Preparation	SLAC	M&S	1	0 wks	\$0.00	\$150,000.00	\$0.00	\$150,000.00	\$9,000.00	\$23,850.00	\$182,850
-		SLAC M&S Total		M&S	0	150,000	\$0.00	\$0.00	\$0.00	\$150,000.00	\$0.00	\$0.00	\$0
991	1.4.3.3	Structures			0	0 wks	\$0.00	\$400,000.00	\$0.00	\$400,000.00	\$24,000.00	\$66,825.20	\$490,825
992	1.4.3.3.1	Structures	SLAC	M&S	5	0 wks	\$0.00	\$400,000.00	\$0.00	\$400,000.00	\$24,000.00	\$66,825.20	\$490,825
		SLAC M&S Total		M&S	0	400,000	\$0.00	\$0.00	\$0.00	\$400,000.00	\$0.00	\$0.00	\$0
993	1.4.3.4	Buildings			0	0 wks	\$0.00	\$160,000.00	\$0.00	\$160,000.00	\$9,600.00	\$25,440.00	\$195,040
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994	1.4.3.4.1	Building Electrical	SLAC	M&S	1	0 wks	\$0.00	\$20,000.00	\$0.00	\$20,000.00	\$1,200.00	\$3,180.00	\$24,380
		SLAC M&S Total		M&S	0	20,000	\$0.00	\$0.00	\$0.00	\$20,000.00	\$0.00	\$0.00	\$0
995	1.4.3.4.2	Building Water	SLAC	M&S	1	0 wks	\$0.00	\$30,000.00	\$0.00	\$30,000.00	\$1,800.00	\$4,770.00	\$36,570
		SLAC M&S Total		M&S	0	30,000	\$0.00	\$0.00	\$0.00	\$30,000.00	\$0.00	\$0.00	\$0
996	1.4.3.4.3	Building HVAC	SLAC	M&S	1	0 wks	\$0.00	\$50,000.00	\$0.00	\$50,000.00	\$3,000.00	\$7,950.00	\$60,950
		SLAC M&S Total		M&S	0	50,000	\$0.00	\$0.00	\$0.00	\$50,000.00	\$0.00	\$0.00	\$0

ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
5997	1.4.3.4.4	Building Special Systems	SLAC	M&S	1	0 wks	\$0.00	\$60,000.00	\$0.00	\$60,000.00	\$3,600.00	\$9,540.00	\$73,140.0
		SLAC M&S Total		M&S	0	60,000	\$0.00	\$0.00	\$0.00	\$60,000.00	\$0.00	\$0.00	\$0.0
998	1.4.3.4.5	Building Interior	SLAC		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
999	1.4.3.4.6	Building Furnishings	SLAC		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
5000	1.4.3.4.7	Building Interior Modifications/Cleanout/Shielding	SLAC		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
5001	1.4.4	Near Hall			0	104 wks	\$952,096.00	\$8,821,000.00	\$0.00	\$9,773,096.00	\$621,679.20	\$2,078,955.04	\$12,473,730.
5002	1.4.4.1	PED			0	104 wks	\$952,096.00	\$0.00	\$0.00	\$952,096.00	\$92,419.20	\$208,903.04	\$1,253,418.
5003	1.4.4.1.1	SEM Engineering	SLAC	ED&I	5	104 wks	\$252,096.00	\$0.00	\$0.00	\$252,096.00	\$50,419.20	\$60,503.04	\$363,018.
		SLAC Site Engineering: Engineer		ED&I	0	104 wks	\$0.00	\$0.00	\$0.00	\$252,096.00	\$0.00	\$0.00	\$0.0
5004	1.4.4.1.2	A&E Services	SLAC	M&S	5	0 wks	\$700,000.00	\$0.00	\$0.00	\$700,000.00	\$42,000.00	\$148,400.00	\$890,400.
		SLAC M&S Total		M&S	0	700,000	\$0.00	\$0.00	\$0.00	\$700,000.00	\$0.00	\$0.00	\$0.0
5005	1.4.4.2	Grounds Preparation			0	0 wks	\$0.00	\$3,216,000.00	\$0.00	\$3,216,000.00	\$192,960.00	\$681,792.00	\$4,090,752.0
6006	1.4.4.2.1	Equip, Drainage, etc	SLAC	M&S	5	0 wks	\$0.00	\$1,399,000.00	\$0.00	\$1,399,000.00	\$83,940.00	\$296,588.00	\$1,779,528.
		SLAC M&S Total		M&S	0	1,399,000	\$0.00	\$0.00	\$0.00	\$1,399,000.00	\$0.00	\$0.00	\$0.
5007	1.4.4.2.2	Modify Bldg 102	SLAC	M&S	5	0 wks	\$0.00	\$100,000.00	\$0.00	\$100,000.00	\$6,000.00	\$21,200.00	\$127,200.
		SLAC M&S Total		M&S	0	100,000	\$0.00	\$0.00	\$0.00	\$100,000.00	\$0.00	\$0.00	\$0.
8008	1.4.4.2.3	Modify Bldg 104	SLAC	M&S	5	0 wks	\$0.00	\$225,000.00	\$0.00	\$225,000.00	\$13,500.00	\$47,700.00	\$286,200.
		SLAC M&S Total		M&S	0	225,000	\$0.00	\$0.00	\$0.00	\$225,000.00	\$0.00	\$0.00	\$0.
6009	1.4.4.2.4	Modify Bldg 211	SLAC	M&S	5	0 wks	\$0.00	\$250,000.00	\$0.00	\$250,000.00	\$15,000.00	\$53,000.00	\$318,000.
		SLAC M&S Total		M&S	0	250,000	\$0.00	\$0.00	\$0.00	\$250,000.00	\$0.00	\$0.00	\$0.
6010	1.4.4.2.5	Roadway Access	SLAC	M&S	5	0 wks	\$0.00	\$742,000.00	\$0.00	\$742,000.00	\$44,520.00	\$157,304.00	\$943,824.
		SLAC M&S Total		M&S	0	742,000	\$0.00	\$0.00	\$0.00	\$742,000.00	\$0.00	\$0.00	\$0.0
6011	1.4.4.2.6	Substation #512 Site characterization & remediation	SLAC		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.
6012	1.4.4.2.7	Site Characterization waste profiling/disposal	SLAC	M&S	5	0 wks	\$0.00	\$500,000.00	\$0.00	\$500,000.00	\$30,000.00	\$106,000.00	\$636,000.0
		SLAC M&S Total		M&S	0	500,000	\$0.00	\$0.00	\$0.00	\$500,000.00	\$0.00	\$0.00	\$0.0
6013	1.4.4.3	Structures			0	0 wks	\$0.00	\$1,553,000.00	\$0.00	\$1,553,000.00	\$93,180.00	\$329,236.00	\$1,975,416.0
6014	1.4.4.3.1	Concrete	SLAC	M&S	5	0 wks	\$0.00	\$742,000.00	\$0.00	\$742,000.00	\$44,520.00	\$157,304.00	\$943,824.
		SLAC M&S Total		M&S	0	742,000	\$0.00	\$0.00	\$0.00	\$742,000.00	\$0.00	\$0.00	\$0.0
6015	1.4.4.3.2	Metals	SLAC	M&S	5	0 wks	\$0.00	\$811,000.00	\$0.00	\$811,000.00	\$48,660.00	\$171,932.00	\$1,031,592.
		SLAC M&S Total		M&S	0	811,000	\$0.00	\$0.00	\$0.00	\$811,000.00	\$0.00	\$0.00	\$0.
5016	1.4.4.4	Buildings			0	0 wks	\$0.00	\$4,052,000.00	\$0.00	\$4,052,000.00	\$243,120.00	\$859,024.00	\$5,154,144.0
5017	1.4.4.4.1	Building Electrical	SLAC	M&S	5	0 wks	\$0.00	\$953,000.00	\$0.00	\$953,000.00	\$57,180.00	\$202,036.00	\$1,212,216.
\neg		SLAC M&S Total		M&S	0	953,000	\$0.00	\$0.00	\$0.00	\$953,000.00	\$0.00	\$0.00	\$0.
6018	1.4.4.4.2	Building Water	SLAC	M&S	5	0 wks	\$0.00	\$158,000.00	\$0.00	\$158,000.00	\$9,480.00	\$33,496.00	\$200,976.
		SLAC M&S Total		M&S	0	158,000	\$0.00	\$0.00	\$0.00	\$158,000.00	\$0.00	\$0.00	\$0.0

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ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
019	1.4.4.4.3		SLAC	M&S	5	0 wks	\$0.00	\$500,000.00	\$0.00	\$500,000.00	\$30,000.00	\$106,000.00	\$636,000.0
\dashv		SLAC M&S Total		M&S	0	500,000	\$0.00	\$0.00	\$0.00	\$500,000.00	\$0.00	\$0.00	\$0.0
020	1.4.4.4.4	Building Special Systems	SLAC	M&S	5	0 wks	\$0.00	\$302,000.00	\$0.00	\$302,000.00	\$18,120.00	\$64,024.00	\$384,144.0
\dashv		SLAC M&S Total		M&S	0	302,000	\$0.00	\$0.00	\$0.00	\$302,000.00	\$0.00	\$0.00	\$0.0
021	1.4.4.4.5	Building Interior	SLAC	M&S	5	0 wks	\$0.00	\$1,279,000.00	\$0.00	\$1,279,000.00	\$76,740.00	\$271,148.00	\$1,626,888.
1021	1.4.4.4.5	-	SLAC										
		SLAC M&S Total		M&S	0	1,279,000	\$0.00	\$0.00	\$0.00	\$1,279,000.00	\$0.00	\$0.00	\$0.
022	1.4.4.4.6	Building Furnishings	SLAC	M&S	5	0 wks	\$0.00	\$110,000.00	\$0.00	\$110,000.00	\$6,600.00	\$23,320.00	\$139,920
		SLAC M&S Total		M&S	0	110,000	\$0.00	\$0.00	\$0.00	\$110,000.00	\$0.00	\$0.00	\$0.
023	1.4.4.4.7	Building X-ray Enclosures	SLAC	M&S	5	0 wks	\$0.00	\$750,000.00	\$0.00	\$750,000.00	\$45,000.00	\$159,000.00	\$954,000
\dashv		SLAC M&S Total		M&S	0	750,000	\$0.00	\$0.00	\$0.00	\$750,000.00	\$0.00	\$0.00	\$0.
024	1.4.5	Tunnel			0	45 wks	\$309,080.00	\$2,102,000.00	\$0.00	\$2,411,080.00	\$159,936.00	\$514,203.20	\$3,085,219.
)25	1.4.5.1	PED			0	45 wks	\$309,080.00	\$0.00	\$0.00	\$309,080.00	\$33,816.00	\$68,579.20	\$411,475.
026	1.4.5.1.1	SEM Engineering	SLAC	ED&I	5	45 wks	\$109,080.00	\$0.00	\$0.00	\$109,080.00	\$21,816.00	\$26,179.20	\$157,075
\dashv		SLAC Site Engineering: Engineer		ED&I	0	45 wks	\$0.00	\$0.00	\$0.00	\$109,080.00	\$0.00	\$0.00	\$0.
027	1.4.5.1.2	Geo Tech Study	SLAC	M&S	5	0 wks	\$50,000.00	\$0.00	\$0.00	\$50,000.00	\$3,000.00	\$10,600.00	\$63,600
_		SLAC M&S Total		M&S	0	50,000	\$0.00	\$0.00	\$0.00	\$50,000.00	\$0.00	\$0.00	\$0
028	1.4.5.1.3		SLAC	M&S	5	0 wks	\$150,000.00	\$0.00	\$0.00	\$150,000.00	\$9,000.00	\$31,800.00	\$190,800
020	1.4.5.1.5	SLAC M&S Total	SLAG	M&S	0	150,000	\$0.00	\$0.00	\$0.00	\$150,000.00	\$0.00	\$0.00	\$0.
				IVI&S									
029	1.4.5.2	Site Preparation			0	0 wks	\$0.00	\$200,000.00	\$0.00	\$200,000.00	\$12,000.00	\$42,400.00	\$254,400.
030	1.4.5.2.1	Site Preparation	SLAC	M&S	5	0 wks	\$0.00	\$200,000.00	\$0.00	\$200,000.00	\$12,000.00	\$42,400.00	\$254,400
		SLAC M&S Total		M&S	0	200,000	\$0.00	\$0.00	\$0.00	\$200,000.00	\$0.00	\$0.00	\$0
031	1.4.5.3	Structures			0	0 wks	\$0.00	\$1,502,000.00	\$0.00	\$1,502,000.00	\$90,120.00	\$318,424.00	\$1,910,544
032	1.4.5.3.1	Structures	SLAC	M&S	5	0 wks	\$0.00	\$1,502,000.00	\$0.00	\$1,502,000.00	\$90,120.00	\$318,424.00	\$1,910,544
		SLAC M&S Total		M&S	0	1,502,000	\$0.00	\$0.00	\$0.00	\$1,502,000.00	\$0.00	\$0.00	\$0
033	1.4.5.4	Buildings			0	0 wks	\$0.00	\$400,000.00	\$0.00	\$400,000.00	\$24,000.00	\$84,800.00	\$508,800.
034	1.4.5.4.1	Building Electrical	SLAC	M&S	5	0 wks	\$0.00	\$75,000.00	\$0.00	\$75,000.00	\$4,500.00	\$15,900.00	\$95,400
-		SLAC M&S Total		M&S	0	75,000	\$0.00	\$0.00	\$0.00	\$75,000.00	\$0.00	\$0.00	\$0.
)35	1.4.5.4.2	Building Water	SLAC	M&S	5	0 wks	\$0.00	\$25,000.00	\$0.00	\$25,000.00	\$1,500.00	\$5,300.00	\$31,800
_		SLAC M&S Total		M&S	0	25,000	\$0.00	\$0.00	\$0.00	\$25,000.00	\$0.00	\$0.00	\$0
036	1.4.5.4.3		SLAC	M&S		0 wks	\$0.00	\$200,000.00	\$0.00	\$200,000.00	\$12,000.00	\$42,400.00	\$254,400
136	1.4.5.4.3	, and the second se	SLAC		5								
		SLAC M&S Total		M&S	0	200,000	\$0.00	\$0.00	\$0.00	\$200,000.00	\$0.00	\$0.00	\$0
037	1.4.5.4.4	Building Special Systems	SLAC	M&S	5	0 wks	\$0.00	\$100,000.00	\$0.00	\$100,000.00	\$6,000.00	\$21,200.00	\$127,200
		SLAC M&S Total		M&S	0	100,000	\$0.00	\$0.00	\$0.00	\$100,000.00	\$0.00	\$0.00	\$0
038	1.4.5.4.5	Building Interior	SLAC		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0
039	1.4.5.4.6	Building Furnishings	SLAC		0	0 wks	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0

ID	CWBS	Task Name	OBS	PHASE	Risk	Units	PED (Direct)	M&S (Direct)	Labor (Direct)	Direct Cost	Overhead Cost	Contingency Cost	Total Cost
6040	1.4.5.4.7	Building X-ray Enclosures	SLAC		0	0 wks	\$0.00		\$0.00	\$0.00		\$0.00	
6041	1.4.6	Far Hall			0	104 wks	\$1,162,096.00	\$13,830,000.00	\$0.00	\$14,992,096.00	\$934,819.20	\$3,105,921.28	\$19,032,836.4
6042	1.4.6.1	PED			0	104 wks	\$1,162,096.00	\$0.00	\$0.00	\$1,162,096.00	\$105,019.20	\$253,423.04	\$1,520,538.2
6043	1.4.6.1.1	SEM Engineering	SLAC	ED&I	5	104 wks	\$252,096.00	\$0.00	\$0.00	\$252,096.00	\$50,419.20	\$60,503.04	\$363,018.2
		SLAC Site Engineering: Engineer		ED&I	0	104 wks	\$0.00	\$0.00	\$0.00	\$252,096.00	\$0.00	\$0.00	\$0.0
6044	1.4.6.1.4	A & E Serv	SLAC	M&S	5	0 wks	\$910,000.00	\$0.00	\$0.00	\$910,000.00	\$54,600.00	\$192,920.00	\$1,157,520.0
		SLAC M&S Total		M&S	0	910,000	\$0.00	\$0.00	\$0.00	\$910,000.00	\$0.00	\$0.00	\$0.0
6045	1.4.6.2	Site Preparation			0	0 wks	\$0.00	\$2,250,000.00	\$0.00	\$2,250,000.00	\$135,000.00	\$477,000.00	\$2,862,000.0
6046	1.4.6.2.1	Site Preparation	SLAC	M&S	5	0 wks	\$0.00	\$2,250,000.00	\$0.00	\$2,250,000.00	\$135,000.00	\$477,000.00	\$2,862,000.0
		SLAC M&S Total		M&S	0	2,250,000	\$0.00	\$0.00	\$0.00	\$2,250,000.00	\$0.00	\$0.00	\$0.0
6047	1.4.6.3	Structures			0	0 wks	\$0.00	\$4,500,000.00	\$0.00	\$4,500,000.00	\$270,000.00	\$954,000.00	\$5,724,000.0
6048	1.4.6.3.1	Structures	SLAC	M&S	5	0 wks	\$0.00	\$4,500,000.00	\$0.00	\$4,500,000.00	\$270,000.00	\$954,000.00	\$5,724,000.0
		SLAC M&S Total		M&S	0	4,500,000	\$0.00	\$0.00	\$0.00	\$4,500,000.00	\$0.00	\$0.00	\$0.0
6049	1.4.6.4	Buildings			0	0 wks	\$0.00	\$7,080,000.00	\$0.00	\$7,080,000.00	\$424,800.00	\$1,421,498.24	\$8,926,298.2
6050	1.4.6.4.1	Building Electrical	SLAC	M&S	5	0 wks	\$0.00	\$1,648,000.00	\$0.00	\$1,648,000.00	\$98,880.00	\$349,376.00	\$2,096,256.0
		SLAC M&S Total		M&S	0	1,648,000	\$0.00	\$0.00	\$0.00	\$1,648,000.00	\$0.00	\$0.00	\$0.0
6051	1.4.6.4.2	Building Water	SLAC	M&S	5	0 wks	\$0.00	\$300,000.00	\$0.00	\$300,000.00	\$18,000.00	\$63,600.00	\$381,600.0
		SLAC M&S Total		M&S	0	300,000	\$0.00	\$0.00	\$0.00	\$300,000.00	\$0.00	\$0.00	\$0.0
6052	1.4.6.4.3	Building HVAC	SLAC	M&S	5	0 wks	\$0.00	\$1,395,000.00	\$0.00	\$1,395,000.00	\$83,700.00	\$216,278.24	\$1,694,978.2
		SLAC M&S Total		M&S	0	1,395,000	\$0.00	\$0.00	\$0.00	\$1,395,000.00	\$0.00	\$0.00	\$0.0
6053	1.4.6.4.4	Building Special Systems	SLAC	M&S	5	0 wks	\$0.00	\$973,000.00	\$0.00	\$973,000.00	\$58,380.00	\$206,276.00	\$1,237,656.0
		SLAC M&S Total		M&S	0	973,000	\$0.00	\$0.00	\$0.00	\$973,000.00	\$0.00	\$0.00	\$0.0
6054	1.4.6.4.5	Building Interior	SLAC	M&S	5	0 wks	\$0.00	\$1,427,000.00	\$0.00	\$1,427,000.00	\$85,620.00	\$302,524.00	\$1,815,144.0
		SLAC M&S Total		M&S	0	1,427,000	\$0.00	\$0.00	\$0.00	\$1,427,000.00	\$0.00	\$0.00	\$0.0
6055	1.4.6.4.6	Building Furnishings	SLAC	M&S	5	0 wks	\$0.00	\$587,000.00	\$0.00	\$587,000.00	\$35,220.00	\$124,444.00	\$746,664.0
		SLAC M&S Total		M&S	0	587,000	\$0.00	\$0.00	\$0.00	\$587,000.00	\$0.00	\$0.00	\$0.0
6056	1.4.6.4.7	Building X-ray Enclosures	SLAC	M&S	5	0 wks	\$0.00	\$750,000.00	\$0.00	\$750,000.00	\$45,000.00	\$159,000.00	\$954,000.0
		SLAC M&S Total		M&S	0	750,000	\$0.00	\$0.00	\$0.00	\$750,000.00	\$0.00	\$0.00	\$0.0