

1.03 Construction Accelerator Systems										10/07/2013				13:07		Rollup		1173	
DESCRIPTION: This summary WBS covers the construction of the cryomodules, power systems, cryogenic systems, beam transport systems, extraction systems, and instrumentation, controls, & safety systems of the 12 GeV Upgrade accelerator.																			
INHOUSE LABOR (MANWEEKS)																			
	Weekly Rate	ETC	ETC Total		Weekly Rate	ETC	ETC Total		Weekly Rate	ETC	ETC Total		Weekly Rate	ETC	ETC Total				
Plant Eng	2.999			Mech Dsgn	1.988	13.920	27.679	Office	1.178	0.550	0.648								
Skilled Trades	1.381	9.640	13.311	Mech Tech	1.834	157.480	288.881	Directorate	7.883										
Elect Engr	2.912	113.450	330.412	Senior Staff	4.664	11.300	52.703	Contrib Univ Labor	0.798										
Elect Dsgn	2.085	37.780	78.764	Scientists	2.914	4.370	12.736	Visiting Users	2.319										
Elect Tech	1.822	253.390	461.575	Comp Scientist	2.708	89.380	242.077	Paid Univ Staff	0.440										
Mech Eng	2.894	45.370	131.319	Admin	2.424			Paid Univ Student											
	FY04-10 Actuals + Committed	FY11 Actuals + Committed	FY12 Actuals + Committed	FY13 Actuals + Committed	Cost + Committed To Date Total	ETC in FY13 \$	Estimate at Completion	Lehman May-2013	Variance										
Labor Manweeks	2,687.285 \$K	4,316.365 \$K	3,619.565 \$K	3,530.908 \$K	14,154.123 \$K	736.630 \$K	14,890.753 \$K	14,302.872 \$K	588										
FTE Years	61.075 \$K	98.099 \$K	82.263 \$K	80.248 \$K	321.685 \$K	16.742 \$K	338.426 \$K	325.065 \$K	13.4										
TOTAL LABOR \$	5,899.515 \$K	8,524.551 \$K	7,278.607 \$K	7,375.013 \$K	29,077.685 \$K	1,640.105 \$K	30,717.790 \$K	29,458.364 \$K	1,259 \$K										
\$ per Jlab FTE YEAR	96.595 \$K	86.897 \$K	88.480 \$K	91.903 \$K	90.392 \$K	97.966 \$K	90.650 \$K	90.811 \$K	\$0 K										
Supplies & Materials	3,622.706 \$K	2,541.435 \$K	2,669.625 \$K	1,298.875 \$K	10,132.641 \$K	81.859 \$K	10,214.500 \$K	9,917.578 \$K	\$297 K										
Travel	95.116 \$K	55.825 \$K	26.611 \$K	26.364 \$K	203.916 \$K	9.799 \$K	213.714 \$K	202.669 \$K	\$11 K										
Consult & Prch Labor	448.394 \$K	1,150.532 \$K	834.029 \$K	481.031 \$K	2,913.986 \$K	14.627 \$K	2,928.612 \$K	2,921.750 \$K	\$7 K										
Machine Shop Labor	82.082 \$K	129.785 \$K	446.190 \$K	443.977 \$K	1,102.033 \$K	10.674 \$K	1,112.707 \$K	880.751 \$K	\$232 K										
TOTAL EXPENSES	4,248.298 \$K	3,877.578 \$K	3,976.454 \$K	2,250.246 \$K	14,352.576 \$K	116.959 \$K	14,469.534 \$K	13,922.748 \$K	\$547 K										
Major Components/A&E < \$50K	3,258.589 \$K	1,446.498 \$K	990.179 \$K	590.514 \$K	6,285.780 \$K	446.202 \$K	6,731.982 \$K	7,013.971 \$K	-\$282 K										
Major Components/A&E > \$50K	41,081.801 \$K	2,240.692 \$K	2,787.955 \$K	-10.622 \$K	46,099.826 \$K	-120.000 \$K	45,979.826 \$K	46,130.697 \$K	-\$151 K										
TOTAL PROCUREMENTS	44,340.389 \$K	3,687.190 \$K	3,778.134 \$K	579.892 \$K	52,385.606 \$K	326.202 \$K	52,711.808 \$K	53,144.669 \$K	-\$433 K										
Total Costs (No overhead)	54,488.203 \$K	16,089.318 \$K	15,033.195 \$K	10,205.151 \$K	95,815.867 \$K	2,083.265 \$K	97,899.132 \$K	96,525.781 \$K	-\$1,373 K										
Labor w/overhead	6,553.006 \$K	9,422.538 \$K	8,086.566 \$K	8,245.264 \$K	32,307.373 \$K	1,836.917 \$K	34,144.291 \$K	32,731.712 \$K	\$1,413 K										
Expenses w/overhead	4,718.034 \$K	4,282.185 \$K	4,419.165 \$K	2,518.028 \$K	15,937.412 \$K	130.994 \$K	16,068.405 \$K	15,453.835 \$K	\$615 K										
Procurement w/overhead	44,700.430 \$K	3,835.246 \$K	3,889.981 \$K	650.594 \$K	53,076.251 \$K	379.746 \$K	53,455.997 \$K	53,921.811 \$K	-\$466 K										
GRAND TOTAL	55,971.469 \$K	17,539.969 \$K	16,395.712 \$K	11,413.886 \$K	101,321.036 \$K	2,347.657 \$K	103,668.693 \$K	102,107.357 \$K	-\$1,561 K										
YEAR	FY 2004/09	FY 2010	FY 2011	FY 2012	FY13 Actuals thru 8/31/13	Actuals	FY13 Sep 1 - Sep 30	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	Total	Original	Delta			
LABOR - Obligation	\$902.208 K	\$5,650.798 K	\$9,422.538 K	\$8,086.566 K	\$8,245.264 K	\$529.222 K	\$1,298.589 K	\$9.106 K						\$34,144.291 K	\$31,396.601 K	\$2,747.689 K			
EXPENSES - Obligation	\$501.913 K	\$4,216.120 K	\$4,282.185 K	\$4,419.165 K	\$2,518.028 K	\$47.437 K	\$83.203 K	\$0.354 K						\$16,068.405 K	\$14,066.818 K	\$2,001.587 K			
PROCUREMENTS - Obligation	\$23,326.302 K	\$21,374.128 K	\$3,835.246 K	\$3,889.981 K	\$650.594 K		\$379.746 K							\$53,455.997 K	\$53,992.234 K	-\$536.237 K			
TOTAL	\$24,730.423 K	\$31,241.046 K	\$17,539.969 K	\$16,395.712 K	\$11,413.886 K	\$576.658 K	\$1,761.538 K	\$9.461 K						\$103,668.693 K	\$99,455.654 K	\$4,213.039 K			
ESCL TOTAL	\$24,730.423 K	\$31,241.046 K	\$17,539.969 K	\$16,395.712 K	\$11,413.886 K	\$576.658 K	\$1,821.559 K	\$10.074 K						\$103,729.327 K	\$99,470.709 K	\$4,258.619 K			
MANWEEKS	FY 2004/09	FY 2010	FY 2011	FY 2012	FY13 Actuals thru 8/31/13	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	Total	Total					
Plant Eng			3.878 MW	1.565 MW	1.648 MW								7.090 MW	5.443 MW	1.648 MW				
Electrician		17.950 MW	66.363 MW	40.000 MW	65.700 MW								199.653 MW	187.980 MW	11.672 MW				
Elect Engr	23.098 MW	344.943 MW	493.595 MW	488.008 MW	471.750 MW	15.960 MW	97.121 MW	0.369 MW					1,934.843 MW	1,705.670 MW	229.173 MW				
Elect Dsgn	0.575 MW	24.863 MW	38.388 MW	35.213 MW	73.975 MW	6.290 MW	30.991 MW	0.499 MW					210.792 MW	225.555 MW	-14.763 MW				
Elect Tech	5.663 MW	234.265 MW	705.535 MW	652.168 MW	756.558 MW	52.110 MW	197.978 MW	3.302 MW					2,607.577 MW	2,394.047 MW	213.531 MW				
Mech Eng	166.645 MW	661.500 MW	743.545 MW	541.575 MW	452.388 MW	22.770 MW	22.600 MW						2,611.023 MW	2,410.865 MW	200.157 MW				
Mech Dsgn	56.225 MW	438.373 MW	421.933 MW	279.100 MW	173.858 MW	5.630 MW	8.290 MW						1,383.408 MW	1,272.550 MW	110.857 MW				
Mech Tech	26.475 MW	436.220 MW	1,600.360 MW	1,384.178 MW	1,311.520 MW	91.440 MW	66.040 MW						4,916.233 MW	4,566.010 MW	350.222 MW				
Senior Staff	38.363 MW	101.323 MW	91.688 MW	68.433 MW	53.210 MW	0.590 MW	10.710 MW						364.315 MW	333.815 MW	30.500 MW				
Scientists	4.163 MW	32.688 MW	25.243 MW	38.635 MW	21.038 MW	0.680 MW	3.690 MW						126.135 MW	114.097 MW	12.038 MW				
Comp Scientist		34.170 MW	73.840 MW	58.380 MW	118.528 MW	22.970 MW	66.410 MW						374.298 MW	391.614 MW	-17.316 MW				
Admin		11.488 MW	22.788 MW	14.250 MW	0.325 MW								48.850 MW	48.525 MW	0.325 MW				
Office	0.250 MW	2.713 MW	9.000 MW	18.063 MW	21.288 MW	0.050 MW	0.500 MW						51.863 MW	31.125 MW	20.737 MW				
Directorate																			
Contributed University Labor																			
Visiting Users																			
Paid University Staff																			
Paid University Students	3.700 MW	21.638 MW	20.213 MW		9.125 MW								54.675 MW	45.550 MW	9.125 MW				
TOTAL MANWEEKS	325.155 MW	2,362.130 MW	4,316.365 MW	3,619.565 MW	3,530.908 MW	223 MW	510 MW	4 MW					14,891 MW	13,732.846 MW	1,157.907 MW				
TOTAL FTES	7.390 FTES	53.685 FTES	98.099 FTES	82.263 FTES	192.595 FTES	8.77 FTES	11.6 FTES	0.1 FTES					338.4 FTES	312.110 FTES	26.316 FTES				
Supplies & Materials	\$415.060 K	\$3,207.646 K	\$2,541.435 K	\$2,669.625 K	\$1,298.875 K	\$26.581 K	\$54.962 K	\$0.316 K					\$10,214.500 K	\$9,077.442 K	\$1,137.059 K				
Travel	\$27.336 K	\$67.780 K	\$55.825 K	\$26.611 K	\$26.364 K	\$2.040 K	\$7.759 K						\$213.714 K	\$200.260 K	\$13.454 K				
Purch Labor	\$7.077 K	\$441.316 K	\$1,150.532 K	\$834.029 K	\$481.031 K	\$5.207 K	\$9.420 K						\$2,928.612 K	\$2,660.718 K	\$267.895 K				
Machine Shop Labor	\$1.522 K	\$80.560 K	\$129.785 K	\$446.190 K	\$443.977 K	\$8.527 K	\$2.147 K						\$1,112.707 K	\$741.977 K	\$370.731 K				
PROCUREMENTS <50K	\$793.321 K	\$2,465.268 K	\$1,446.498 K	\$990.179 K	\$590.514 K		\$446.202 K						\$6,731.982 K	\$6,939.000 K	-\$207.018 K				
PROCUREMENTS >50K	\$22,443.413 K	\$18,638.388 K	\$2,240.692 K	\$2,787.955 K	-\$10.622 K		-\$120.000 K						\$45,979.826 K	\$46,284.042 K	-\$304.217 K				
Total	\$23,687.729 K	\$24,900.959 K	\$7,564.767 K	\$7,754.588 K	\$2,830.138 K	\$42.354 K	\$400.490 K	\$0.316 K					\$67,181.342 K	\$65,903.439 K	\$1,277.903 K				
\$\$\$\$\$\$\$\$	FY 2004/09	FY 2010	FY 2011	FY 2012	FY13 Actuals thru 8/31/13	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	Total	Total					
Plant Eng			\$13.089 K	\$5.599 K	\$6.243 K								\$24.930 K	\$18.688 K	\$6.243 K				
Skilled Trades, Electrician		\$27.707 K	\$106.909 K	\$65.295 K	\$111.923 K	\$6.158 K	\$7.153 K						\$325.145 K	\$292.439 K	\$32.706 K				
Elect Engr	\$67 K	\$873.643 K	\$1,292.285 K	\$1,314.473 K	\$1,329.248 K	\$46.482 K	\$282.856 K	\$1.074 K					\$5,207.529 K	\$4,560.585 K	\$646.944 K				
Elect Dsgn	\$1 K	\$47.872 K	\$79.047 K	\$74.491 K	\$161.288 K	\$13.113 K	\$64.609 K	\$1.041 K											