

| DESCRIPTION: | This summary WBS co | overs the construct | ction of the cyromo | s, power systems, c | cyrogenic systems, beam | port systems, extrac | ction systems, and inst | tataion, controls, \& | sstems of the 12 | rade accelerator |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| INHOUSE LABOR (MANWEEK | SS)--Weekly Rate | ETC | ETC Total |  | Weekly Rate | ETC | ETC Total |  | Weekly Rate | ETC | ETC Total |  |  |  |
| Plant Eng | 2.8992 |  |  | Mech Dsgn | 1.9884 | 13.9200 | 27.6785 | Office | 1.1784 | 0.5500 | 0.6481 |  |  |  |
| Skilled Trades | 1.3808 | 9.6400 | 13.3109 | Mech Tech | 1.8344 | 157.4800 | 288.8813 | Directorate | 7.8832 |  |  |  |  |  |
| Elect Engr | 2.9124 | 113.4500 | 330.4119 | Senior Staff | 4.6640 | 11.3000 | 52.7032 | Contrib Univ Labor |  |  |  |  |  |  |
| Elect Dsgn | 2.0848 | 37.7800 | 78.7637 | Scientists | 2.9144 | 4.3700 | 12.7359 | Visiting Users | 0.7980 |  |  |  |  |  |
| Elect Tech | 1.8216 | 253.3900 | 461.5752 | Comp Scientist | 2.7084 | 89.3800 | 242.0768 | Paid Univ Staff | 2.3192 |  |  |  |  |  |
| Mech Eng | 2.8944 | 45.3700 | 131.3189 | Admin | 2.4244 |  |  | Paid Univ Student | 0.4404 |  |  |  |  |  |
|  | FY04-10 Actuals + Committed | FY11 Actuals + Committed | FY12 Actuals + Committed | FY13 Actuals + Committed | Cost + Committed To Date Total | ETC in FY 13 S | Estimate at Completion | Lehman May-2013 | Variance |  |  |  |  |  |
| Labor Manweeks | ${ }_{\text {2,687.285 }}^{61.075}$ | 4,316.365 98.099 | 3,619.5655 <br> 8.263 | $3,530.908$ <br> 80.248 | $14,154.123$ 321.685 | 736.630 16.742 | 14,890.753 | 14,302.872 | $\begin{array}{\|} 587.880 \\ 13.361 \end{array}$ |  |  |  |  |  |
| TOTAL LABORS | 5,899.515 | 8,524.551 | 7,278.607 | 7,375.013 | 29,077.685 | 1,640.105 | 30,717.790 | 29,458.364 | 1,259.426 |  |  |  |  |  |
| \$ per Jlab FTE YEAR | 96.595 | 86.897 | 88.480 | 91.903 | 90.392 | 97.966 | 90.650 | 90.811 | -0.161 |  |  |  |  |  |
| Supplies \& Materials | 3,622.706 | 2,541.435 | 2,669.625 | 1,298.875 | 10,132.641 | 81.859 | 10,214.500 | 9,917.578 | 296.922 |  |  |  |  |  |
| Travel | 95.116 | 55.825 | 26.611 | 26.364 | 203.916 | 9.799 | 213.714 | 202.669 | 11.046 |  |  |  |  |  |
| Consult \& Prch Labor | ${ }_{4}^{448.394}$ | $1,150.532$ 129785 | 834.029 446.190 | 481.031 443977 | $2,913.986$ 1102033 | 14.627 10.674 | 2,928.612 | 2,921.750 | ${ }^{6.862}$ |  |  |  |  |  |
| Machine Shop Labor | 4,248.2988 | 3,877.578 | 3,976.454 | $\underset{\text { 2,250.246 }}{ }$ | $\begin{array}{r}\text { 14,32.033 } \\ \hline 1.576\end{array}$ | $\begin{array}{r}110.6959 \\ \hline 1\end{array}$ | 14,429.534 | 13,922.748 | 231.956 5487 |  |  |  |  |  |
| Major Components/A\&E < \$ 50 K | 3,258.589 | 1,446.498 | 990.179 | 590.514 | 6,285.780 | 446.202 | 6,731.982 | 7,013.971 | $-281.989$ |  |  |  |  |  |
| Major Components/A\&E > \$50K | 41,081.801 | 2,240.692 | 2,787.955 | -10.622 | 46,099.826 | -120.000 | $45,979.826$ | 46,130.697 | -150.872 |  |  |  |  |  |
| TOTAL PROCUREMENTS | $44,340.389$ 54.4882 | 3,687.190 | 3,778.134 | 579.892 | 52,385.606 | ${ }^{326.202}$ | 52,711.808 | 53,144.669 | -432.861 |  |  |  |  |  |
| Labor w/overhead |  | 16,089.318 | $15,033.195$ 8.086 .566 | $\frac{10,205.151}{8.245 .264}$ | $95,815.867$ $32,307.373$ | ${ }_{\text {2,083.265 }}{ }_{\text {1,836.917 }}$ | 97,899.132 $34,144.291$ | 96,525.781 | 1,373.351 |  |  |  |  |  |
| Expenses w/overerhead |  | $\xrightarrow{9,4222.538} 4$ | $8,086.566$ $4,491.165$ | $\xrightarrow{8,245.264} 2$ | ( $\begin{aligned} & 32,307.373 \\ & 15,937.412\end{aligned}$ | $1,836.917$ <br> 130.994 | $34,444.291$ <br> $16,068.405$ |  |  |  |  |  |  |  |
| Procurement w/overhead | $44,700.430$ | 3,835.246 | 3,889.981 | 650.594 | 53,076.251 |  | 53,455.997 | 53,921.811 | ${ }_{-465.814}$ |  |  |  |  |  |
| GRAND TOTAL | 55,971.469 | 17,539.969 | 16,395.712 | 11,413.886 | 101,321.036 | 2,347.657 | 103,668.693 | 102,107.357 | 1,561.336 |  |  |  |  |  |
| YEAR | FY 2004/09 | FY 2010 | FY 2011 | FY 2012 | $\underset{8 / 131 / 3}{\substack{\text { FY13 Actuals thru } \\ 8}}$ | Actuals | $\begin{gathered} \text { FY13 } \\ \text { Sep } 1-\text { Sep } 30 \end{gathered}$ | FY 2014 | FY 2015 | FY 2016 | FY 2017 | FY 2018 | FY 2019 | Total |
| LABOR - Obligation | 902.208 | 5,650.798 | 9,422.538 | 8,086.566 | 8,245.264 |  | 529.222 | 1,298.589 | 9.106 |  |  |  |  | 34, 144.291 |
| EXPENSES - Obligation | ${ }^{501.913}$ | $4,216.120$ 2,374128 | $4,282.185$ <br> , 83515 | $4,419.165$ <br> 3 <br> 88981 | 2,518.028 |  | 47.437 | ${ }^{83} 8.203$ | 0.354 |  |  |  |  |  |
| TOTAL | 24,730.423 | 退3,241.046 | 17,539.969 | ${ }_{\text {16,399.772 }}$ | $\stackrel{11,413.886}{ }$ |  | 576.658 | ${ }_{1}^{1,761.538}$ | 9.461 |  |  |  |  | ${ }_{\text {103,668.693 }}$ |
| ESCL TOTAL | 24,730.423 | 31,241.046 | 17,539.969 | 16,395.712 | 11,413.886 |  | 576.658 | 1,821.559 | 10.074 |  |  |  |  | 103,729.327 |
|  |  |  |  |  | FY13 Actuals thru |  |  |  |  |  |  |  |  |  |
| manweeks | FY $2004 / 09$ | FY 2010 | FY 2011 | FY 2012 | 8/31/13 |  | FY 2013 | FY 2014 | FY 2015 | FY 2016 | FY 2017 | FY 2018 | FY 2019 | Total |
| Plant Eng |  |  | 3.878 MW | 1.565 MW | 1.648 MW |  |  |  |  |  |  |  |  | 7.090 MW |
| Skilled Trades, Electrician |  | 17.950 MW | 66.363 MW | 40.000 MW | 65.700 MW |  | 4.460 MW | 5.180 MW |  |  |  |  |  | 199.653 MW |
| Elect Engr | ${ }^{23.098} \mathbf{0}$ MW | 344.943 MW | ${ }_{4}^{493.595 \mathrm{MW}}$ | 488.008 MW 35213 MW | 471.750 MW 773975 MW |  | + ${ }^{15.960 \mathrm{MW}}$ | ${ }_{\text {97. }} 97.121 \mathrm{MW}$ |  |  |  |  |  | 1,934.843 MW |
| (lect Dsgn | ${ }^{0.575 ~ M W ~}$ | ${ }^{24.863} \mathrm{MW}$ | ${ }^{38.3888} \mathrm{MW}$ | 35.213 MW | ${ }^{73.955} \mathbf{~ 7 W ~}$ |  | ${ }_{5}^{6.290 ~ M W}$ | 30.991 MW | 0.499 MW |  |  |  |  | 210.792 MW |
| Elect Tech Mech Eng | 5.663 MW | 234.265 MW | 705.535 MW | ${ }_{5}^{652.1685 \mathrm{MW}}$ | 756.558 MW |  | 52.110 MW | 197.978 MW 22.00 MW |  |  |  |  |  | $2,607.577 \mathrm{MW}$ |
| Mech Eng | $\begin{array}{r}166.645 \mathrm{MW} \\ 56.225 \mathrm{MW} \\ \hline\end{array}$ | 661.500 MW 438.373 MW | 743.545 MW 421.933 MW | [ $\begin{aligned} & 541.575 \mathrm{MW} \\ & 279.100 \mathrm{MW}\end{aligned}$ | 452.388 MW 173.858 MW |  | 22.770 MW <br> 5.630 MW | 22.600 MW <br> 8.290 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 |  |  |  |  |  | ${ }_{4}^{4,996}$, 233 MW |
| Senior Staff | 38.363 MW | 101.323 MW | 91.688 MW | 68.433 MW | 53.210 MW |  | 0.590 MW | 10.710 MW |  |  |  |  |  | ${ }^{364.315 \mathrm{MW}}$ |
| Scientists | 4.163 MW | ${ }^{32.688 ~ M W}$ | ${ }^{25.243 \mathrm{MW}}$ | 38.635 MW | ${ }^{21.038 ~ M W}$ |  | 0.680 MW | 3.690 MW |  |  |  |  |  | ${ }^{126.135 ~ M W}$ |
| Comp Scientist |  | 34.170 MW | 73.840 MW | 58.380 MW | 118.528 MW |  | 22.970 MW | 66.410 MW |  |  |  |  |  | 374.298 MW |
| Admin |  | 11.488 MW | 22.788 MW | 14.250 MW | 0.325 MW |  |  |  |  |  |  |  |  | 48.850 MW |
| Directiorate | 0.250 MW | 2.713 MW | 9.000 MW | 18.063 MW | 21.288 MW |  | 0.050 MW | 0.500 MW |  |  |  |  |  | 51.863 MW |
| Contributed University Liotaber |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Contributed University Labor Visting Users |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Paid University Statif |  |  |  |  | 9.125 MW |  |  |  |  |  |  |  |  |  |
| TOTAL Paid University Students | ${ }_{325.750 \mathrm{MW}}^{37 \mathrm{MW}}$ | ${ }_{\text {2,362. } 2130 \mathrm{MW}}$ | $\xrightarrow{4.30 .261365 \mathrm{MW}}$ | 3,619.565 MW | ${ }_{3,530.908}^{9.125 \mathrm{MW}}$ |  | 222.950 MW | 509.510 MW | 4.170 MW |  |  |  |  | ${ }_{14.890 .753 \mathrm{MW}}^{54.67}$ |
| TOTAL FTES | ${ }^{\text {7 }}$, 390 FTEs | ${ }^{\text {2,36..385 FTES }}$ | 9, 98.099 FTEs | 82.263 FTEs | 192.595 FTEs |  | 8.686 FTEs | 11.580 FTEs | 0.095 FTEs |  |  |  |  | 338.426 FTES |
| Supplies \& Materials | ${ }_{\$ 4415.060 \mathrm{~K}}$ | ${ }^{\text {\$3,207.646 K }}$ | ${ }^{\text {\$2,541.435 K }}$ | \$2,669.625 K | \$1,298.875 K |  | \$26.581K | \$54.962 K | \$0.316 K |  |  |  |  | \$10,214.500 K |
|  | \$27.336 K | $\$ 67.780 \mathrm{~K}$ $\$ 441.316 \mathrm{~K}$ | $\$ 55.825 \mathrm{~K}$ $\$ 1,150.532 \mathrm{~K}$ | $\$ 26.611 \mathrm{~K}$ $\$ 834.029 \mathrm{~K}$ | \$26.364 K $\$ 481.031 \mathrm{~K}$ |  | $\$ 2.040 \mathrm{~K}$ $\$ 5.207 \mathrm{~K}$ | $\$ 77.759 \mathrm{~K}$ $\$ 9.420 \mathrm{~K}$ |  |  |  |  |  | \$213.714K |
| Machine Shor Lab Labor | \$7.522 K | ${ }_{\$ 80.560 \mathrm{~K}}$ | \$1,150.532 ${ }^{\text {\$ }} 129.885 \mathrm{~K}$ | \$834.029 | ${ }_{\$ 443.977 \mathrm{~K}}^{\$ 8.031 \mathrm{~K}}$ |  | \$55.207\% | \$9.420 $\$ 2.147 \mathrm{~K}$ |  |  |  |  |  | $\$ 2,928.612 \mathrm{~K}$ <br> $\$ 1.112 .707 \mathrm{~K}$ |
| PROCUREMENTS $<50 \mathrm{~K}$ | \$793.321 K | \$2,465.268 K | \$1,446.498 K | \$990.179 K | \$590.514 K |  |  | \$446.202 K |  |  |  |  |  | \$6,731.982 K |
| PROCUREMENTS $\times 50 \mathrm{~K}$ | \$22,443.413 K | \$18,638.388 K | \$2,240.692 K | \$2,787,955 K | - $\$ 10.622 \mathrm{~K}$ |  |  | \$120.000 K |  |  |  |  |  | \$45,979.826 K |
|  | \$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 |
| \$\$s\$s\$s\$\$ | FY 200409 | FY 2010 | FY 2011 | FY 2012 | $\begin{gathered} \hline \text { FY13 Actuals thru } \\ 8 / 31 / 13 \\ \hline \end{gathered}$ |  | FY 2013 | FY 2014 | FY 2015 | FY 2016 | FY 2017 | FY 2018 | FY 2019 | Total |
| (sosanteng | F200409 |  | \$13.089 K | \$5.599 K | $\$_{66.243 \mathrm{~K}}$ |  |  |  |  |  |  |  |  | \$24.930 K |
| Skilled Trades, Electrician |  | \$27.707 K | \$106.909 K | $\$ 65.295 \mathrm{~K}$ | \$111.923 K |  | $\$ 6.158 \mathrm{~K}$ | \$7.153 K |  |  |  |  |  | \$325.145 K |
| Elect Engr | \$67.468 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 |
| Elect Dsgn | \$1.166 K | \$47.872 K | \$79.047 K | \$74.491 K | \$161.288 K |  | \$13.113 K | \$64.609 K | \$1.041 K |  |  |  |  | \$442.628 K |
| Elect Tech | \$ $\$ 1.1438 \mathrm{~K}$ | \$16380994 K | \$1,198.437 K $\$ 189.415 \mathrm{~K}$ | \$1,121.639 K | \$1,336.197K |  | ${ }_{\text {¢ }} \$ 94.924 \mathrm{~K}$ | \$360.636 K | \$6.016 K |  |  |  |  | \$4,540.278 K |
| Mech Eng | \$411.949 K | \$1,638.294 ${ }_{\text {¢ }}$ | \$1,859.415 K $\$ 772.183 \mathrm{~K}$ | \$1,403.436 K $\$ 505.945 \mathrm{~K}$ | $\$ 1,213.704 \mathrm{~K}$ <br> $\$ 335.349 \mathrm{~K}$ |  | \$65.905 K $\$ 11.195 \mathrm{~K}$ | $\$ 65.413 \mathrm{~K}$ $\$ 16.484 \mathrm{~K}$ |  |  |  |  |  | $\$ 6,658.117 \mathrm{~K}$ $\$ 2.533 .553 \mathrm{~K}$ |
| Mech Tech | \$43.632 K | \$655.375 K | \$2,503.215 K | \$2,188.524 K | \$2,211.898 K |  | \$167.738 K | \$121.144 K |  |  |  |  |  | ${ }_{\$ 7,891.525 \mathrm{~K}}$ |
| Senior Statf | \$153.168 K | \$420.324 K | \$376.975 K | \$285.257 K | \$232.351 K |  | \$2.752 K | \$49.951 K |  |  |  |  |  | \$1,520.778 K |
| Somp Scieintistst | \$14.547 K | \$104.312 K | $\$ 82.063 \mathrm{~K}$ $\$ 18469 \mathrm{~K}$ | \$111.649 K | ${ }_{\text {¢ }} \$ 677.368 \mathrm{~K}$ |  | \$1.982K | \$ $\$ 10.754 \mathrm{~K}$ |  |  |  |  |  | \$392.675 K |
| Comp Scienitist ${ }_{\text {Admin }}$ |  | ${ }_{\$ 816.195 \mathrm{~K}}^{\text {K }}$ | \$33.010 K | \$ ${ }_{\text {S21.021 K }}$ | $\underset{\$ 336.674 \mathrm{~K}}{\$ 0.470 \mathrm{~K}}$ |  |  |  |  |  |  |  |  | \$ $\$ 70.695 \mathrm{~K}$ |
| Office | \$0.287 K | \$3.203 K | \$10.944 K | \$22.396 K | \$27.432 K |  | $\$ 0.059 \mathrm{~K}$ | \$0.589 K |  |  |  |  |  | \$64.910 K |
| Contributed University Liotaber |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Contributed University Labor <br> Visting Users |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Paid University Staft |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Paid University Students | \$2.050 K | \$18.245 K | \$12.509 K |  | \$4.869 K |  |  |  |  |  |  |  |  | \$37.674 K |
| TOTAL TOTAL WGA | ${ }_{\text {¢ }}^{\text {¢ }}$ | $\frac{\$ 55,088.835 \mathrm{~K}}{\$ 5,650.798 \mathrm{~K}}$ | ${ }_{\text {¢ }}^{\text {\$8,524.551 K }}$ |  | $\frac{\$ 7,375.013 \mathrm{~K}}{\$ 8,245.264 \mathrm{~K}}$ |  | $\$ 472.519 \mathrm{~K}$ $\$ 529.222 \mathrm{~K}$ |  | ${ }^{\text {\$88.131 K }}$ |  |  |  |  | \$30,717.790 K ${ }^{\text {S }}$ |
| Original Direct | \$24,498.409 K | \$29,989.794 K | \$16,089.318 K | \$15,033.195 K | \$10,205.151 K |  | \$514.873 K | \$1,559.945 K | \$8.447 K |  |  |  |  | \$97,899.132 K |
| Original Burdened | \$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 |
| Original Escalated | \$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 |

