**MUSE Basis of Estimate**

**Shipping of Scintillator Detectors WBS 7**

I. General Information

Task Name: Purchase of backing structure for scintillators

Unique ID Number

Date of Estimate: 12/19/2015

Estimate Generator: Steffen Strauch, Thomas O’Connor (ANL)

Cost Category:

X M&S

SWF

Comments:

Vendor Quote Number if Applicable:

Drawing Reference Number or Attachment:

Costing Method: estimate based on engineering experience

Total Task Cost: $10,800

Total Contingency: $3,996

II. Cost Estimate Breakdown

Cost of each element, along with justification

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item | QTY | Description | Unit Price USD | Total Price USD |
| 1 | 1 | Support framework based on extrusions | $7,500 | $7,500 |
| 2 | 1 | Rails and carriages on the floor | $2,500 | $2,500 |
| 3 |  | 8% SC Tax |  | $800 |
|  |  | Total |  | **$10,800** |

The cost is for the support framework of the left and right, front and rear TOF scintillator walls. The cost was estimated by ANL engineer, Tomas O’Connor. The frame will be build at USC.

III. Contingency and risk analysis

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Item | Technical | Design | Cost | Schedule | Contingency |
| Frames | 4 | 4 | 15 | 6 | 37% |

IV. Time Estimates and contingency on time

Time estimate is (optimistic+pessimistic+4\*most-likely)/6.

Sigma is (pessimistic-optimistic)/6.

Be sure to indicate if work days or calendar days.



Comments:

