# - 3e, <br> Jefferson Lab Alignment Group Data Transmittal 

TO: B. Miller, D. Carman $\quad$ DATE: 18 Jan 2017

FROM: Kelly Tremblay
DETAILS:
Checked:
\# : B1764
data:inspection\hallblfwd carriage\170118a
The forward carriage was surveyed on January 18 ${ }^{\text {th }}$, 2017. The as found positional data is shown below. The ideal values are the coordinates from machine center. The reference point used is the center of the hub / upstream side of the forward carriage. This position is centered about the $x$ and $y$ coordinates $(80.000,100.35526)$ and 262.053 " downstream of hall $b$ reference center.

The deltas in the beam following coordinate system are shown. A negative dx means the location is to the beam right; negative dy means low, and a $+z$ indicates the coordinate is downstream of the ideal location. Similarly, the angular deltas are the found rotations. A positive dYaw is the rotated counter clockwise from ideal about the Y axis; A negative pitch indicates a clockwise roll about the x axis; a negative roll indicates a clockwise rotation about the X axis.

|  | Ideal |  |  | Deltas Beam Following |  |  | Angular Deltas |  |  |
| :---: | :---: | :---: | :---: | ---: | ---: | ---: | :---: | :---: | :---: |
| Position | $X[\mathrm{~m}]$ | $\mathrm{Y}[\mathrm{m}]$ | $\mathrm{Z}[\mathrm{m}]$ | $\mathrm{dx}[\mathrm{mm}]$ | $\mathrm{dy}[\mathrm{mm}]$ | $\mathrm{dz}[\mathrm{mm}]$ | dYaw | dPitch | dRoll |
| FWDCAR | -80.60000 | 103.35526 | -406.75094 | -2.480 | 0.199 | 52.256 | 0.0653 | -0.0183 | -0.0032 |

