3			Beamline Conceptual Design	Bearnine Conceptual Design
5		.1.2	Beamline Review Frascati's Refurbishement	10/7 Beamline Review Frascati's Refurbishement
6	<u>=</u> 1		Frascati beampipe 1	Frascati beampipe 1
7		.1.5	Beam Pipe to SVT	SVT Vacuum Box
8		.1.6	SVT Vacuum Box Electron Target	Electron Target
10		.1.8	Ecal Vacuum Chamber Welding	Ecal Vacuum Chamber Welding
11		.1.9	Restore controls and diagnostics SVT Collimator Protection	Restore controls and diagnostics SVT Collimator Protection
13		.1.11	Vacuum beam line downstream of chicane	Vacuum beam line downstream of chicane
14		.1.12	BOM and link to FS	BOM and link to FS
15 16		.1.13	Complete single piece vacuum chamber Frascati Beampipe 2	Complete single piece vacuum chamber Frascati Beampipe 2
17		.1.15	Beam Offset Monitor	Beam Offset Monitor
18		.1.16	Beam Profile Monitor	Beam Profile Monitor
19 20		.1.17	Cavity BPM Photon Dump	Cavity BPM Photon Dump
21	-	.1.10	Shielding	Shielding
22	■ 1	.1.20	Beamline Installation	
23 24		.1.21 . 2	Beamline Installed SVT	9/26 ₹ Beamline Installed SVT
25	<u> </u>		SVT returns from Jlab	SVT returns from Jlab
26		.2.2	SVT Engineering Design Review	7/22 SVT Engineering Design Review
27 28	■ 1 ■ 1	.2.3	Layers 1-3 Layers 4-6	Layers 1-3 Layers 4-6
29		.2.5	C-Support	C-Support
30		.2.6	DAQ Support/Cooling	DAQ Support/Cooling
31 32	Ⅲ 1	.2.7	Baseplate Motion Levers	Baseplate Motion Levers
33	<u> </u>		Vacuum Flanges	Vacuu <mark>m Fl</mark> anges
34		.2.10	Shipping Crates	Shipping Crates
35 36		.2.11	Integration and testing at SLAC SVT Shipped at JLAB	Integration and testing at SLAC 6/16 SVT Shipped at JLAB
37	■ 1	.2.13	Integration at Jlab	Integration at Jlab
38		.2.14	SVT Ready For Installation	8/15 × SVT Ready For Installation
39 40	1 Ø 1	.3 .3.1	SVT DAQ FE Boards	FE Boards
51		.3.2	Flange	Flange
59		.3.3	DAQ	DAQ
69 75		.3.4 .3.5	Hybrid Flex Cable	Hybrid Flex Cable
81	1	.4	ECAL	ECAL
82	■ 1		Ecal Enclosure	Ecal Enclosure Fix 2-shorted HV groups on top-left
83 84		.4.2 .4.3	Fix 2-shorted HV groups on top-left Order new bottom motherboard	Fix 2-shorted HV groups on top-left Order new bottom motherboard
85	 1	.4.4	Install New motherboards	Install New motherboards
	■ . 1		Replacement pre-amplifier boards	Replacement pre-amplifier boards Low voltage PS
87 88	1 💷 1 🗓		Low voltage PS Delay Cables	Delay Cables
89	⊞ 1		Light Monitoring System	Light Monitoring System
90		.4.9	Assemble Ecal	Assemble Ecal Test and Calibrate Ecal
91 92		.4.10 .4.11	Test and Calibrate Ecal New mounting system	New mounting system
93		.4.12	ECAL Ready for the installation	8/8 💉 ECAL Ready for the installation
94		.5	Muon	9/2 Muon Engineering design review
95 96	Ⅲ 1	.5.1	Muon Engineering design review PMT	9/2 ★ Muon Engineering design review
97		.5.3	Muon Vacuum Chamber	Muon Vacuum Chamber
98		.5.4	Stand	Stand Absorbers
99		.5.5 .5.6	Absorbers Hodoscope Support	Hodoscope Support
101	⊞ 1		Cable HV	Cable HV
102		.5.8	Cable Signal	Cable Signal Assembly
103		.5.9 .5.10	Assembly Testing	Testing
105		.5.11	Muon Ready for installation	7/11 😾 Muon Ready for installation
106 107	1 1	. 6	TDAQ EPICS information into data stream	TDAQ EPICS information into data stream
108		.6.2	Event header with appropriate inf	© Event header with appropriate inf
109		.6.3	Readout of fADC scalers in EPICS	Readout of fADC scalers in EPICS
110	III 1	.6.4 .6.5	Rate monitring with discriminator scalrs Event display	Rate monitring with discriminator scalrs Event display
112		.6.6	Monitoring/histogramin	Monitoring/histogramin
113	Ø 1		ECAL+Muon FDAC	AL+Muon FDAC
114 115	Ⅲ 1		Trigger Interface Signal distribution	Trigger Interface anal distribution
116			Crate Trigger Processor	Crate Trigger Processor
117		.6.11	Sub-System Processor	b-System Processor
		.6.12 .6.13	Global Trigger Processor Trigger Distribution	Global Trigger Processor Trigger Distribution
120	≣ 1	.6.14	Trigger Supervisor	Trigger Supervisor
121 122		.6.15 .6.16	Update firmware on FADC250 New firmware for cluster finding	Update firmware on FADC250 New firmware for cluster finding
		.6.17	New firmware for cluster finding New firmware for SSP	New firmware for cluster infulng New firmware for SSP
124	■ 1	.6.18	Trigger monitoring tools	Trigger monitoring tools
125 126	■ 1		Slow Control Chiller control programming	Chiller control programming
127	⊞ 1	.7.2	I/O modules for control	I/O modules for control
128	■ 1		Sensor readout programming	Sensor readout programming
129 130	■ 1		SVT voltage control ECAL voltage control	SVT voltage control ECAL voltage control
131	⊞ 1	.7.6	Muon detector voltage control	Muon detector voltage control
132	■ 1		SVT motor controls	SVT motor controls Target motor control
133 134	<u>=</u> 1		Target motor control Software interlock	Software interlock
135	■ 1	.7.10	Hardware interlocks	Hardware interlocks
136 137		.7.11 .7.12	Beamline control screens EPICS Scalers programing	Beamline control screens EPICS Scalers programing
137		.7.12 .7.13	Alarms configuration	Alarms configuration
139	■ 1	.7.14	Archiving of controls	Archiving of controls
140 141	1	.8	Installation & Commissioning Installation review	7/21 ★ Installation & Commissioning
		8 1	n in the contract of the contr	1721 X III SAUDANI TO VICE
142	■ 1	.8.1 .8.2	SVT I&C	SVTI&C
142 143	■ 1 ■ 1	.8.2 .8.3	SVT I&C ECAL I&C	ECAL I&C
142 143 144	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	.8.2 .8.3 .8.4	SVT I&C ECAL I&C Muon I&C	ECAL I&C Muon I&C
142 143	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	.8.2 .8.3 .8.4 .8.5	SVT I&C ECAL I&C	ECAL I&C
142 143 144 145 146 147	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	.8.2 .8.3 .8.4 .8.5 .8.6	SVT I&C ECAL I&C Muon I&C TDAQ I&C Slow Control I&C HPS ready for the beam	ECAL I&C Muon I&C TDAQ I&C Slow Control I&C 9/12 HPS ready for the beam
142 143 144 145 146 147 148	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	.8.2 .8.3 .8.4 .8.5 .8.6 .8.7	SVT I&C ECAL I&C Muon I&C TDAQ I&C Slow Control I&C HPS ready for the beam Electron Running	ECAL I&C Muon I&C TDAQ I&C Slow Control I&C 9/12 HPS ready for the beam Electron Running
142 143 144 145 146 147	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	.8.2 .8.3 .8.4 .8.5 .8.6 .8.7	SVT I&C ECAL I&C Muon I&C TDAQ I&C Slow Control I&C HPS ready for the beam Electron Running Beamline Commissioning (2014)	ECAL I&C Muon I&C TDAQ I&C Slow Control I&C 9/12 HPS ready for the beam
142 143 144 145 146 147 148 149 150	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	.8.2 .8.3 .8.4 .8.5 .8.6 .8.7 .9 .9.1 .9.2	SVT I&C ECAL I&C Muon I&C TDAQ I&C Slow Control I&C HPS ready for the beam Electron Running Beamline Commissioning (2014) Commissioning Run (2014) Run 2.2GeV (2014)	Beamline Commissioning (2014) Commissioning Run (2014) Run 2.2GeV (2014)
142 143 144 145 146 147 148 149 150 151 152	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	.8.2 .8.3 .8.4 .8.5 .8.6 .8.7 .9 .9.1 .9.2 .9.5	SVT I&C ECAL I&C Muon I&C TDAQ I&C Slow Control I&C HPS ready for the beam Electron Running Beamline Commissioning (2014) Commissioning Run (2014) Run 2.2GeV (2014) Run 1.1 GeV (2014)	Beamline Commissioning (2014) Commissioning Run (2014) Run 2.2GeV (2014) Run 1.1 GeV (2014)
142 143 144 145 146 147 148 149 150	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	.8.2 .8.3 .8.4 .8.5 .8.6 .8.7 .9 .9.1 .9.2	SVT I&C ECAL I&C Muon I&C TDAQ I&C Slow Control I&C HPS ready for the beam Electron Running Beamline Commissioning (2014) Commissioning Run (2014) Run 2.2GeV (2014)	Beamline Commissioning (2014) Commissioning Run (2014) Run 2.2GeV (2014)
142 143 144 145 146 147 148 149 150 151 152 153 154 155	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	.8.2 .8.3 .8.4 .8.5 .8.6 .8.7 .9 .9.1 .9.2 .9.5 .9.6 .9.3 .9.4	SVT I&C ECAL I&C Muon I&C TDAQ I&C Slow Control I&C HPS ready for the beam Electron Running Beamline Commissioning (2014) Commissioning Run (2014) Run 2.2GeV (2014) Run 1.1 GeV (2014) Beamline recommissioning (2015) Data Run (2015) SLAC Travel	Beamline Commissioning (2014) Commissioning Run (2014) Run 2.2GeV (2014) Run 1.1 GeV (2014) Beamline recommissioning (2015) Data Run (2015)
142 143 144 145 146 147 148 149 150 151 152 153 154 155 156	## 11 11 11 11 11 11 11 11 11 11 11 11 1	.8.2 .8.3 .8.4 .8.5 .8.6 .8.7 .9 .9.1 .9.2 .9.5 .9.6 .9.3 .9.4 .10	SVT I&C ECAL I&C Muon I&C TDAQ I&C Slow Control I&C HPS ready for the beam Electron Running Beamline Commissioning (2014) Commissioning Run (2014) Run 2.2GeV (2014) Run 1.1 GeV (2014) Beamline recommissioning (2015) Data Run (2015) SLAC Travel Collaboration Meeting May 2013	ECAL I&C Muon I&C TDAQ I&C Sow Control I&C HPS ready for the beam Electron Running Beamline Commissioning (2014) Commissioning Run (2014) Run 2.2GeV (2014) Run 1.1 GeV (2014) Beamline recommissioning (2015) Data Run (2015) SLAC Trave
142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157	## 11 11 11 11 11 11 11 11 11 11 11 11 1	.8.2 .8.3 .8.4 .8.5 .8.6 .8.7 .9 .9.1 .9.2 .9.5 .9.6 .9.3 .9.4 .10 .10.2	SVT I&C ECAL I&C Muon I&C TDAQ I&C Slow Control I&C HPS ready for the beam Electron Running Beamline Commissioning (2014) Commissioning Run (2014) Run 2.2GeV (2014) Run 1.1 GeV (2014) Beamline recommissioning (2015) Data Run (2015) SLAC Travel Collaboration Meeting May 2013 Consultation 1 at JLAB	ECAL I&C Muon I&C TDAQ I&C Slow Control I&C HPS ready for the beam Electron Running Electron Running Commissioning Run (2014) Run 2.2GeV (2014) Run 1.1 GeV (2014) Beamline recommissioning (2015) Data Run (2015) SLAC Trave Consultation 1 at JLAB
142 143 144 145 146 147 148 149 150 151 152 153 154 155 156	11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	.8.2 .8.3 .8.4 .8.5 .8.6 .8.7 .9 .9.1 .9.2 .9.5 .9.6 .9.3 .9.4 .10.2 .10.3 .10.4	SVT I&C ECAL I&C Muon I&C TDAQ I&C Slow Control I&C HPS ready for the beam Electron Running Beamline Commissioning (2014) Commissioning Run (2014) Run 2.2GeV (2014) Run 1.1 GeV (2014) Beamline recommissioning (2015) Data Run (2015) SLAC Travel Collaboration Meeting May 2013	Collaboration Meeting May 2013 Collaboration Meeting May 2013 Collaboration Meeting May 2013 Collaboration Meeting May 2013 Collaboration Meeting May 2014 Commissioning (2014) Run 1.1 GeV (2014) Run 1.1 GeV (2014) Beamline recommissioning (2015) Data Run (2015) SLAC Trave Collaboration Meeting May 2014
142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	.8.2 .8.3 .8.4 .8.5 .8.6 .8.7 .9 .9.1 .9.2 .9.5 .9.6 .9.3 .9.4 .10.2 .10.3 .10.4 .10.5 .10.9	SVT I&C ECAL I&C Muon I&C TDAQ I&C Slow Control I&C HPS ready for the beam Electron Running Beamline Commissioning (2014) Commissioning Run (2014) Run 2.2GeV (2014) Run 1.1 GeV (2014) Beamline recommissioning (2015) Data Run (2015) SLAC Travel Collaboration Meeting May 2013 Consultation 1 at JLAB Collaboration Meeting May 2014 Consultation 2 at JLAB	Collaboration Meeting May 2013 Collaboration Meeting May 2013 Collaboration Meeting May 2013 Consultation 1 at JLAB Consultation 2 at JLAB Consultation 2 at JLAB Consultation 2 at JLAB
142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	.8.2 .8.3 .8.4 .8.5 .8.6 .8.7 .9 .9.1 .9.2 .9.5 .9.6 .9.3 .10.2 .10.3 .10.4 .10.5 .10.9 .10.7	SVT I&C ECAL I&C Muon I&C TDAQ I&C Slow Control I&C HPS ready for the beam Electron Running Beamline Commissioning (2014) Commissioning Run (2014) Run 2.2GeV (2014) Run 1.1 GeV (2014) Beamline recommissioning (2015) Data Run (2015) SLAC Travel Collaboration Meeting May 2013 Consultation 1 at JLAB Collaboration Meeting May 2014 Consultation 2 at JLAB Collaboration Meeting November 2014	ECAL I&C Muon I&C TDAQ I&C Slow Control I&C 9/12 HPS ready for the beam Electron Running Beamline Commissioning (2014) Commissioning Run (2014) Run 2.2GeV (2014) Run 2.2GeV (2014) Beamline recommissioning (2015) Data Run (2015) Collaboration Meeting May 2013 Collaboration Meeting November 2013 Collaboration Meeting May 2014 Consultation 2 at JLAB Collaboration Meeting November 2014
142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	.8.2 .8.3 .8.4 .8.5 .8.6 .8.7 .9 .9.1 .9.2 .9.5 .9.6 .9.3 .10.2 .10.3 .10.4 .10.5 .10.9 .10.7	SVT I&C ECAL I&C Muon I&C TDAQ I&C Slow Control I&C HPS ready for the beam Electron Running Beamline Commissioning (2014) Commissioning Run (2014) Run 2.2GeV (2014) Run 1.1 GeV (2014) Beamline recommissioning (2015) Data Run (2015) SLAC Travel Collaboration Meeting May 2013 Consultation 1 at JLAB Collaboration Meeting May 2014 Consultation 2 at JLAB Collaboration Meeting November 2014 Installation&Commissioning SLAC Travel for Commissioning Run Shifts	© Collaboration Meeting May 2013 © Collaboration Meeting May 2013 © Collaboration Meeting May 2013 © Collaboration Meeting May 2014 © Consultation 2 at JLAB © Consultation 2 at JLAB © Consultation 2 at JLAB © Consultation Meeting May 2014 © Consultation 2 at JLAB © Collaboration Meeting May 2014 © Consultation 2 at JLAB © Collaboration Meeting May 2014 © Consultation 2 at JLAB © Collaboration Meeting May 2014
142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164		.8.2 .8.3 .8.4 .8.5 .8.6 .8.7 .9 .9.1 .9.2 .9.5 .9.6 .9.3 .9.4 .10.2 .10.3 .10.4 .10.5 .10.9 .10.7	SVT I&C ECAL I&C Muon I&C TDAQ I&C Slow Control I&C HPS ready for the beam Electron Running Beamline Commissioning (2014) Commissioning Run (2014) Run 2.2GeV (2014) Run 1.1 GeV (2014) Beamline recommissioning (2015) Data Run (2015) SLAC Travel Collaboration Meeting May 2013 Consultation 1 at JLAB Collaboration Meeting May 2014 Consultation 2 at JLAB Collaboration Meeting November 2014 Installation&Commissioning	ECAL I&C Muon I&C TDAQ I&C TDAQ I&C Sow Control I&C Sow