

SBS Schedule

ID	Task Name	Duration
1	SBS Installation Schedule	195 days
2	Preliminaries	10 days
3	RADCON Survey / Hold	1 day
4	Post Beam Checklist	1 day
5	Warm Up and Bleed Up Target Chamber	3 days
6	Open Target Chamber	1 day
7	Complete as Found Surveys on Target and HRS	3 days
8	Remove Target	1 day
9	Bleed up both HRS	2 days
10	Bleed up Entrance and Exit Beamline	1 day
11	Move Both HRS Into De-Installation Position	3 days
12	De-Installation Of Previous Experiment	18 days
13	Remove Equipment From Previous Experiment	13 days
14	Warm Up The Cryogenic System	15 days
15	Install SBS Equipment	187 days
16	Decommission R-HRS	57 days
17	Shutdown and Lockout All Magnets and Power Supplies	1 day
18	Turn Off LCW to R-HRS	1 day
19	Drain LCW System Feeding Right Arm	2 days
20	Disconnect and Drain LCW to RQ1	1 day
21	Disconnect Power Leads To RQ1	2 days
22	De-sting U-Tubes For R-HRS	2 days
23	Bleed Up All Vacuum Systems To R-HRS	1 day
24	Remove All Vacuum Pumps From R-HRS	2 days
25	Disconnect Large "Anaconda" Cryo Line Feeding R-HRS	1 day
26	Disconnect/Secure All Cables/Lines Over Pivot To R-HRS	4 days
27	Remove Detectors From R-HRS Shield Hut	5 days
28	Make Modifications To Target Platform	2 days
29	Relocate Green Shielding Wall	3 days
30	Relocate Power Supplies Behind Shielding Wall	10 days
31	Relocate Electronics Racks Behind Shielding Wall	10 days
32	Relocate AHU Located On East Wall	10 days
33	Clear Floor Space Needed To Rotate R-HRS Pass Rollup Door	3 days
34	Rotate R-HRS Pass Roll Up Door	2 days
35	Prep L-HRS & Exit Beamline	21 days
36	Shutdown and Lockout All Magnets and Power Supplies	1 day
37	Bleed Up All Vacuum Systems To L-HRS	1 day
38	Rotate L-HRS Out So Exit Beamline Can Be Removed	1 day
39	Disconnect Wiring And Instrumentation For Exit Beamline	2 days
40	Remove Shielding Blocks Underneath Exit Beamline	2 days
41	Remove Exit Beamline	2 days

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ID	Task Name	Duration
42	Remove Infrastructure & Support For Exit Beamline	3 days
43	Move L-HRS Into Position For Installing SBS	3 days
44	Layout Footprint and Holes For Beamline Crane	1 day
45	Install Beamline Crane	4 days
46	Load Test Crane	1 day
47	Upgrade LCW System	21 days
48	Shutdown and Lockout LCW Feed To Hall	1 day
49	Drain Entire LCW System	2 days
50	Cut Open Current LCW System	2 days
51	Weld In New LCW Manifold	10 days
52	Tie In New LCW Addition	5 days
53	Inspect, Pressurize and Certify New LCW System	1 day
54	Transport and Stage SBS Equipment In Hall	30 days
55	Disassemble 48D48 Magnet and Counterweight Assembly In Test Lab	10 days
56	Remove Magnet Coils	1 day
57	Disassemble Magnet Steel	2 days
58	Disconnect Hydraulic Positioning System	1 day
59	Disassemble Counterweight Steel and Weldment	1 day
60	Lay Magnet and Counterweight Steel Down	2 days
61	Disassemble Floor Plates	2 days
62	Prep Equipment and Material For Transporting To Hall	1 day
63	Transport 48D48 Magnet Steel and Counterweight To Hall A	6 days
64	Clear Floor Space In Test Lab Needed To Load Steel	1 day
65	Clear Floor Space For Delivering Steel In The Hall	1 day
66	Transport Magnet Steel and Counterweight Assembly To Hall	3 days
67	Transport Hydraulic Positioning System To Hall	1 day
68	Transport SBS Lockers and Remaining Equipment To Hall	1 day
69	Transport HCAL Setup To Hall A	9 days
70	Disassemble HCAL Electronics In Test Lab	2 days
71	Disassemble HCAL Sub-Assemblies In Test Lab	2 days
72	Transport Electronic Rack To Hall	1 day
73	Transport Sub-Assemblies To Hall	4 days
74	Transport Big Bite Equipment To Hall A	5 days
75	Disconnect Big Bite Equipment Racks In Test Lab	2 days
76	Transport Big Bite Equipment Racks To Hall	1 day
77	Transport Big Bite Detectors To Hall	1 day
78	Transport Big Bite Lockers and Supporting Equipment To Hall	1 day
79	Assemble SBS Equipment In Hall	88 days

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80	Install 48D48 Magnet and Exit Beam Line	43 days
81	Layout And Connect Floor Plates	3 days
82	Install Counterweight Weldment	2 days
83	Install Counterweight Blocks	3 days
84	Install Hillman Rollers	1 day
85	Install Lifting Jacks and Springs	1 day
86	Connect Hydraulic Hoses and Pumps	3 days
87	Connect Hydraulic Electronics	2 days
88	Check and Adjust Pumps and Controls	2 days
89	Install Positioning Actuators	2 days
90	Connect Power and Test Actuators	1 day
91	Adjust Actuators and Limit Switches	1 day
92	Assemble 48D48 Magnet On Weldment	4 days
93	Assemble Exit Beamline and Shielding	5 days
94	Install Exit Beamline	2 days
95	Connect Power Leads To Magnet	1 day
96	Hook Up Temp Sensors and Electronics	2 days
97	Connect LCW	1 day
98	Install Field Clamps	1 day
99	Install Guards	3 days
100	Test Magnet Operation At Low Current	3 days
101	Install Big Bite Magnet	13 days
102	Move L-HRS Into Position For Installing Big Bite	1 day
103	Install Big Bite Stand On Pivot	1 day
104	Install Big Bite Magnet On Pivot Stand	1 day
105	Connect Power Leads To Magnet	1 day
106	Connect Temp Sensors and Electronics	2 days
107	Connect LCW	1 day
108	Install Guards	3 days
109	Install Shielding	2 days
110	Test Magnet Operations At Low Current	1 day
111	Install Correct Magnets and Target Chamber	21 days
112	Install Corrector Magnets On Beamline	10 days
113	Connect Power Leads To Magnet	2 days
114	Connect Temp Sensors and Electronics	2 days
115	Connect LCW	1 day
116	Install Guards	5 days
117	Install Target Chamber On Pivot	1 day
118	Install HCAL Detectors	19 days
119	Assemble HCAL Detector	4 days
120	Install HCAL Equipment Racks	3 days
121	Install HCAL Platform	2 days
122	Hook Up Detectors	10 days

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123	Install Big Bite Detectors	13 days
124	Install Big Bite Detectors On Pivot Stand	1 day
125	Install Equipment Racks	2 days
126	Hook Up Detectors	10 days
127	Final Preparations	55 days
128	Cooldown L-HRS	25 days
129	Pumpdown and Leak Check Exit Beamline	10 days
130	Pumpdown and Leak Check L-HRS	10 days
131	Pumpdown and Leak Check Enterance Beamline	5 days
132	Install Target	1 day
133	Survey Target	1 day
134	Close Up, Pumpdown and Leak Check Target Chamber	2 days
135	Cooldown Target	3 days
136	Survey and Align All SBS Equipment	5 days
137	Dial In The Cryo System	2 days
138	Test All Magnets and Power Supplies To Full Current	15 days
139	Remove Excessive Equipment From Hall	2 days
140	Complete Pre-Beam Checklist	1 day