

# REVISED MILESTONES/OBLIGATION PLAN



**G. STAPPER**  
**JUNE 9, 1994**

LIGO-G94003000-M

## **REVISED MILESTONES/OBLIGATION PLAN**

### **ASSUMPTIONS**

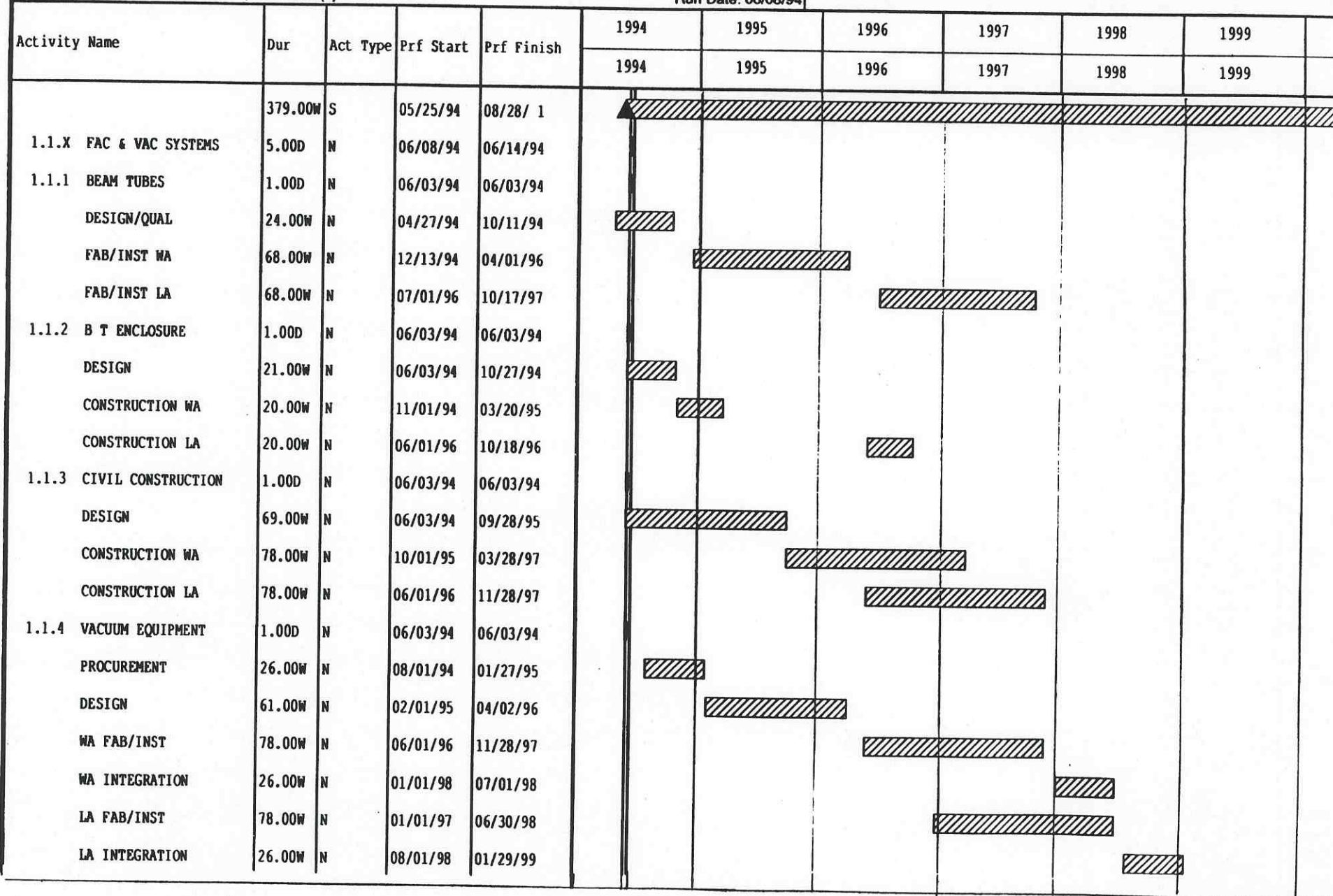
- **MILESTONES AND OBLIGATION PLAN ARE BASED ON THE '93 PROJECT MANAGEMENT PLAN**
- **FUNDING LEVEL AND SCHEDULE ARE BASED ON LATEST NSF GUIDANCE**
- **PROJECT STAFFING IS BASED ON THE AUGMENTED STAFFING PLAN**
- **SCHEDULE IS SUCCESS ORIENTED (NO SLACK TIME)**
- **LOUISIANA SITE ASSUMES CLOSURE ON LAND TRANSFER**
- **PIPELINE CROSSING IS STILL A LIEN AGAINST THE PROJECT (BOTH COST AND SCHEDULE)**

### SCH0525 - GANTT CHART

Report Span: 01/01/94 To 01/01/ 2

Project Span: 05/25/94 To 08/28/ 1, 379 Week(s)

Run Date: 06/08/94



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Activity Name	Dur	Act Type	Prf Start	Prf Finish	1994	1995	1996	1997	1998	1999
					1994	1995	1996	1997	1998	1999
1.2.X DETECTOR SYSTEMS	5.00D	N	06/08/94	06/14/94						
1.2.1 INTERFEROMETERS	1.00D	N	06/08/94	06/08/94						
DESIGN	131.00W	N	06/01/94	12/03/96						
FABRICATION	105.00W	N	06/01/96	06/05/98						
INST/INTEGRATION WA	52.00W	N	06/21/98	06/18/99						
INST/INTEGRATION LA	52.00W	N	01/29/99	01/27/ 0						
1.2.2 CDS	5.00D	N	06/08/94	06/14/94						
DESIGN	131.00W	N	06/01/94	12/03/96						
FABRICATION	105.00W	N	06/01/96	06/05/98						
INST/INTEGRATION WA	77.00W	N	01/01/98	06/23/99						
INST/INTEGRATION LA	77.00W	N	06/15/98	12/03/99						
1.2.3 AUX PHYSICS	5.00D	N	06/08/94	06/14/94						
DESIGN	52.00W	N	01/01/96	12/27/96						
PROC/FAB	52.00W	N	01/01/97	12/30/97						
INST/INTEGRATION WA	77.00W	N	01/01/98	06/23/99						
INST/INTEGRATION LA	77.00W	N	06/15/98	12/03/99						
1.2.4 SUPPORT EQUIPMENT	5.00D	N	06/08/94	06/14/94						
SPECIFY/PROCURE	52.00W	N	01/01/97	12/30/97						
INSTALL WA	77.00W	N	01/01/98	06/23/99						
INSTALL LA	77.00W	N	06/15/98	12/03/99						
1.3.X RESEARCH & DEVELOPMENT	68.00M	N	06/08/94	12/12/ 0						
1.4.X PROJECT OFFICE	68.00M	N	06/08/94	12/12/ 0						

# REVISED MILESTONES/OBLIGATION PLAN

## PROJECT MILESTONES

- 1994
  - INITIATE SITE DEVELOPMENT (HANFORD) 3/94
  - BEAM TUBE FINAL DESIGN REVIEW 4/94
  - SELECT A-E CONTRACTOR 10/94
  - COMPLETE BEAM TUBE QUALIFICATION TEST 10/94 (?)
  - INITIATE TUBE SLAB CONSTRUCTION (HANFORD) 11/94
  - INITIATE BEAM TUBE FABRICATION (HANFORD) 12/94
  
- 1995
  - SELECT VACUUM EQUIPMENT CONTRACTOR 2/95
  - COMPLETE TUBE SLAB (HANFORD) 3/95
  - INITIATE SITE DEVELOPMENT (LIVINGSTON) 6/95
  - COMPLETE BUILDING DESIGN 9/95
  - INITIATE BUILDING CONSTRUCTION (HANFORD) 10/95
  
- 1996
  - COMPLETE BEAM TUBE INSTALLATION (HANFORD) 4/96
  - COMPLETE VACUUM EQUIPMENT DESIGN 4/96
  - INITIATE TUBE SLAB CONSTRUCTION (LIVINGSTON) 6/96
  - INITIATE BUILDING CONSTRUCTION (LIVINGSTON) 6/96
  - INITIATE VACUUM EQUIPMENT FABRICATION (HANFORD) 6/96
  - INITIATE BEAM TUBE SLAB FABRICATION (LIVINGSTON) 7/96
  - COMPLETE TUBE SLAB (LIVINGSTON) 10/96

# REVISED MILESTONES/OBLIGATION PLAN

## PROJECT MILESTONES

- 1997
  - INITIATE VACUUM EQUIPMENT FABRICATION (LIVINGSTON) 1/97
  - COMPLETE BUILDINGS (HANFORD) 4/97
  - COMPLETE BEAM TUBE INSTALLATION (LIVINGSTON) 10/97
  - COMPLETE BUILDINGS (LIVINGSTON) 12/97
  - COMPLETE VACUUM EQUIPMENT INSTALLATION (HANFORD) 12/97
  - INITIATE FACILITY CHECKOUT (HANFORD) 12/97
  
- 1998
  - COMPLETE VACUUM EQUIPMENT INSTALLATION (LIVINGSTON) 7/98
  - COMPLETE FACILITY CHECKOUT (HANFORD) 7/98
  - INITIATE INTERFEROMETER INSTALLATION (HANFORD) 7/98
  - INITIATE FACILITY CHECKOUT (LIVINGSTON) 7/98
  
- 1999
  - COMPLETE FACILITY CHECKOUT (LIVINGSTON) 1/99
  - INITIATE INTERFEROMETER INSTALLATION (LIVINGSTON) 1/99

# REVISED MILESTONES/OBLIGATION PLAN

WBS	Millions of FY93 dollars								Contingency Allocation		TOTAL
	CY92	CY93	CY94	CY95	CY96	CY97	CY98	TOTAL	\$M	%	
<b>1. Subcontracted design, construction mgmt, &amp; QA services</b>											
1.1.		0.1	1.0	0.3				1.4	0.2	15%	1.6
1.2.			1.1	0.2	0.5	0.3		2.1	0.3	15%	2.4
1.3.			0.8		0.3			1.1	0.2	20%	1.3
1.4.				5.6	0.3	1.7	0.4	8.0	1.2	15%	9.2
1.5.		1.3	1.6		1.2			4.1	0.6	15%	4.7
1.8.	0.3	0.4	0.3					1.0	0.0	0%	1.0
							<b>Subtotal</b>	<b>17.7</b>	<b>2.6</b>		<b>20.3</b>
<b>2. Washington site facilities &amp; equipment:</b>											
2.1.			7.3					7.3	0.7	10%	8.0
2.2.				14.4				14.4	2.9	20%	17.3
2.3.			7.6					7.6	1.9	25%	9.5
2.4.					12.0	14.0		26.0	5.2	20%	31.2
2.5.			15.9					15.9	1.6	10%	17.5
2.6.					2.7	2.0		4.7	1.2	25%	5.9
2.7.						0.5	5.3	5.8	4.4	75%	10.2
							<b>subtotal</b>	<b>81.7</b>	<b>17.8</b>		<b>99.5</b>
<b>3. Louisiana site facilities and equipment:</b>											
3.1.				7.6				7.6	1.5	20%	9.1
3.2.					10.1			10.1	2.0	20%	12.1
3.3.					7.6			7.6	1.9	25%	9.5
3.4.						10.0	3.4	13.4	2.7	20%	16.1
3.5.					15.9			15.9	1.6	10%	17.5
3.6.						2.1	2.2	4.3	1.1	25%	5.4
3.7.							2.9	2.9	2.2	75%	5.1
							<b>Subtotal</b>	<b>61.8</b>	<b>13.0</b>		<b>74.8</b>
<b>4. Manpower, support, operations:</b>											
4.1.	0.8	0.9	1.2	1.7	1.7	1.3	0.7	8.3		0%	8.3
4.2.	2.3	3.1	4.3	6.2	6.6	5.2	2.7	30.4		0%	30.4
4.3.	0.1	0.1	0.6	0.6	0.6	0.6	0.2	2.8		0%	2.8
4.4.	1.0	0.6	1.2	1.4	1.4	1.4	0.5	7.5		0%	7.5
4.5.	0.7	0.9	1.1	1.6	1.7	1.3	0.7	8.0		0%	8.0
4.6.								0.0			0.0
							<b>Subtotal</b>	<b>57.0</b>			<b>57.0</b>
Subtotal	5.2	7.4	44.0	39.6	62.6	40.4	19.0	218.2	33.3	15%	251.5
Contingency:	0.0	0.0	5.1	5.3	8.9	6.5	7.4	33.3			
<b>TOTAL (FY93 \$M)</b>	<b>5.2</b>	<b>7.4</b>	<b>49.1</b>	<b>44.9</b>	<b>71.5</b>	<b>46.9</b>	<b>26.4</b>	<b>251.5</b>			
NSF (GDP) inflation Factor	--	1.0000	1.0329	1.0668	1.1009	1.1367	1.1736				
<b>TOTAL, GDP-PROJECTED \$M</b>	<b>5.2</b>	<b>7.4</b>	<b>50.8</b>	<b>47.9</b>	<b>78.8</b>	<b>53.3</b>	<b>31.0</b>	<b>274.4</b>			
*excluding sales & use taxes											
cum obligation	5.2	12.6	63.4	111.3	190.0	243.4	274.4				
<b>TOTAL FUNDING</b>	<b>19.1</b>	<b>24.0</b>	<b>39.0</b>	<b>54.0</b>	<b>54.0</b>	<b>54.0</b>	<b>42.0</b>				
cum funding	19.1	43.1	82.1	136.1	190.1	244.1	286.1				
cum funding less obligation	13.9	30.5	18.7	24.8	0.1	0.7	11.7				