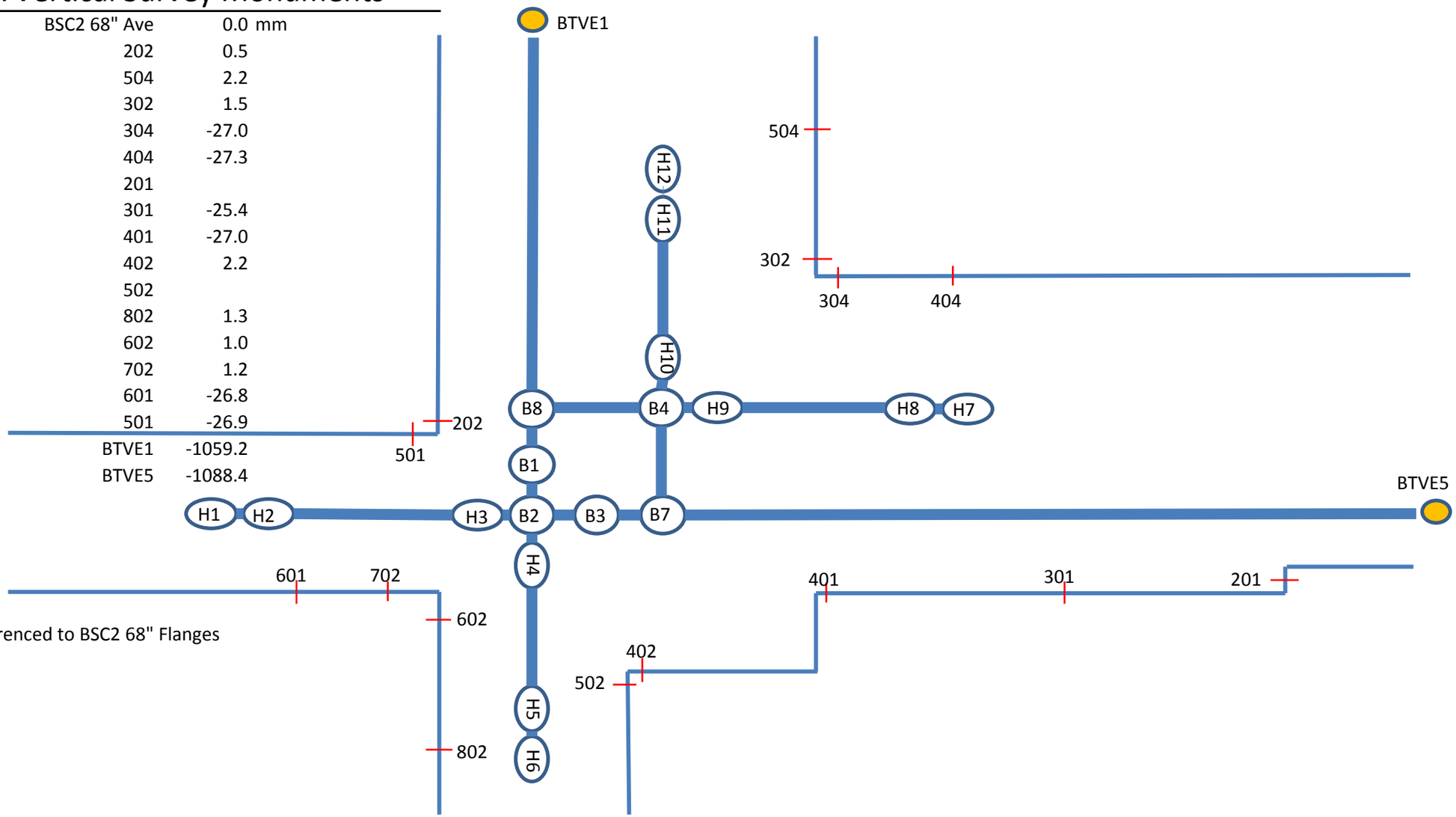
T1100187	LHO Vertical Survey Monuments and Local to Global Offsets										
Chamber	Xcoord	Ycoord	MeasElev	Unit		Z_L to Z_G Offset(m)					
WBSC1	0.0000	4.5850		m		0.0001		-0.000619	DirCosines LocalX to Global		
WBSC2	0.0000	0.0000	0.0000	m		0.0000		0.0000125	DirCosines LocalY to Global		
WBSC3	4.5850	0.0000		m		-0.0028		0.304801	m/ft		
WBSC4	9.2200	9.2200	99.9937	m		-0.0056		1.0605	GV-5 is higher than BTVE1 in m		
WBSC7	9.3690	0.0000	99.9935	m		-0.0058					
WBSC8	0.0000	9.3690	99.9993	m		0.0001					
WHAM1	-22.7220	0.0000		m		0.0141					
WHAM2	-20.1170	0.0000	99.9128	m		0.0125					
WHAM3	-3.8310	0.0000		m		0.0024					
WHAM4	0.0000	-3.8310	99.9014	m		0.0000					
WHAM5	0.0000	-20.1170	99.9004	m		-0.0003					
WHAM6	0.0000	-22.7220		m		-0.0003					
WHAM7	31.9470	9.2200		m		-0.0197					
WHAM8	29.3420	9.2200	99.8823	m		-0.0180					
WHAM9	12.6010	9.2200	99.8931	m		-0.0077					
WHAM10	9.2200	12.6010	99.8933	m		-0.0055					
WHAM11	9.2200	29.3370	99.8952	m		-0.0053					
WHAM12	9.2200	31.9420		m		-0.0053					
	Measured Elevations are 68" Flange Averages wrt GV-5 from RSI 1997										
	Direction Cosines from T980044										
	Vert Offset column set Local Level and LIGO Global Frame = at BSC2 68" Flanges										
	Chambers are aLIGO designation & location										
	Chamber Locations from V049-5-001 found in D990684										
	To set something in the global frame, add the offset to the computed elevation.										
	For example, to set the position of the HAM7 chamber, the 68" doors are 100mm below the										
	LIGO beam line. Elevations are referenced to BSC2=0. Therefore, set the 68" door										
	centerline at -100-19.7=-119.7mm below local level.										
	Refer to sheet LHO LVEA Mons for reference elevations.										

T1100187 LHO Vertical Survey Monuments and Local to Global Offsets

LHO LVEA Vertical Survey Monuments

BSC2 68" Ave	0.0 mm
202	0.5
504	2.2
302	1.5
304	-27.0
404	-27.3
201	
301	-25.4
401	-27.0
402	2.2
502	
802	1.3
602	1.0
702	1.2
601	-26.8
501	-26.9
BTVE1	-1059.2
BTVE5	-1088.4



Elevations referenced to BSC2 68" Flanges