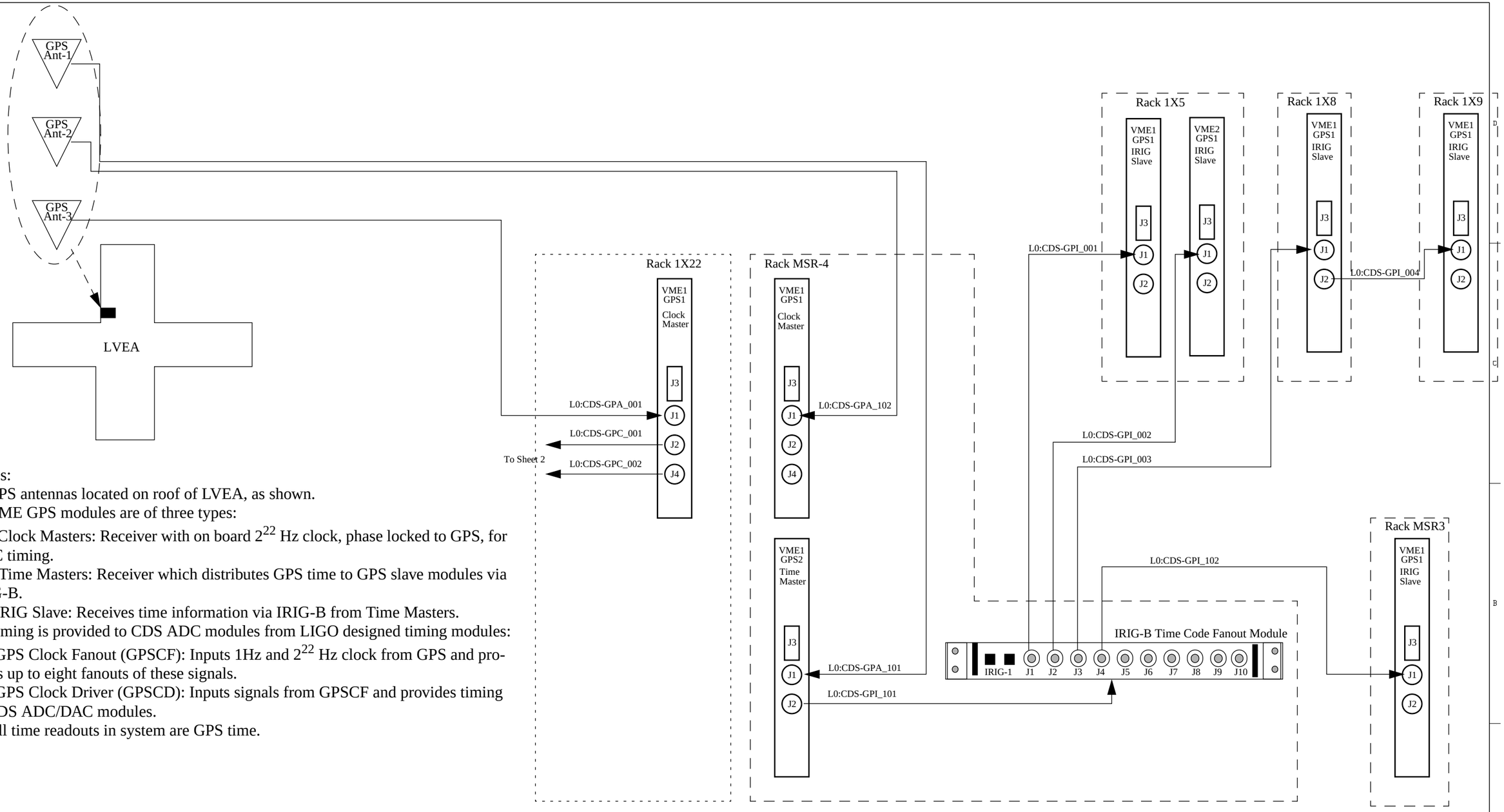

Notes:

1) GPS antennas located on roof of LVEA, as shown.
2) VME GPS modules are of three types:

- Clock Masters: Receiver with on board 2^{22} Hz clock, phase locked to GPS, for ADC timing.
- Time Masters: Receiver which distributes GPS time to GPS slave modules via IRIG-B.
- IRIG Slave: Receives time information via IRIG-B from Time Masters.

3) Timing is provided to CDS ADC modules from LIGO designed timing modules:

- GPS Clock Fanout (GPSCF): Inputs 1Hz and 2^{22} Hz clock from GPS and provides up to eight fanouts of these signals.
- GPS Clock Driver (GPSCD): Inputs signals from GPSCF and provides timing to CDS ADC/DAC modules.

3) All time readouts in system are GPS time.

D980362-C	CDS Timing Clock Fanout Module Schematics		
D980369-C	CDS Timing Clock Driver Module Schematics		

DWG. NO.	DESCRIPTION	DWG. NO.	DESCRIPTION
REFERENCE DRAWINGS			

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONAL ±
ANGULAR MACH ± BEND ±
TWO PLACE DECIMAL ±
THREE PLACE DECIMAL ±
FINISHED SURFACE RMS
BREAK CORNERS ON OUT:
REMOVE ALL BURRS

DO NOT SCALE THIS DRAWING
USED ON:
NEXT ASS'Y:

REV	DESCRIPTION	SHEETS EFFECTED	DATE
ISSUE DESCRIPTION			

CURRENT REVISION APPROVAL

	DRAWN	GROUP	SIGNATURE	DATE
	CHECKED	R. Bork		1/21/00
		DCC		

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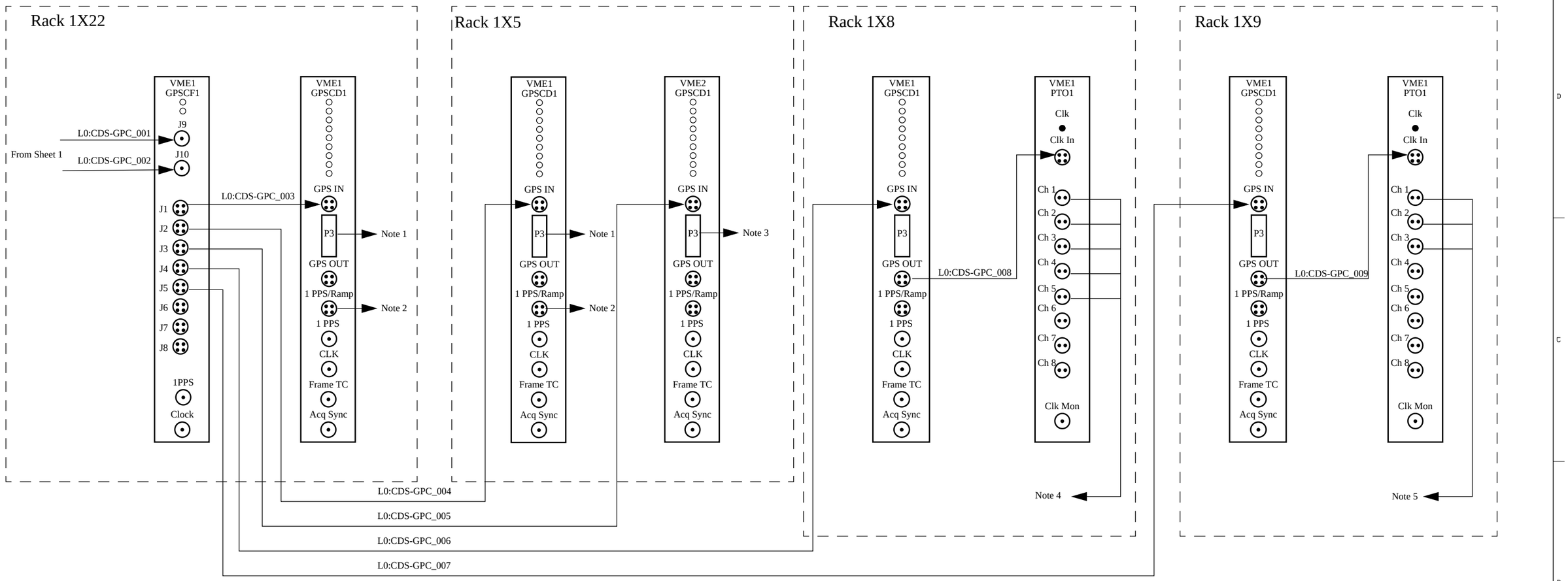
Livingston Timing System Cable Diagram
Corner Station
Antenna / IRIG-B Connections

SCALE	SIZE	DWG. NO.	REV.
	B	D990083-A-C	
CAD FILE SCALE	SHEET 1 of 4	STD	VER. D1

6 5 4 3 2 1



NOTES:

1) Connect via Ribbon to ICS-110B ADC modules. See appropriate rack drawing.
2) Connect as input to ICS-110B ADC channels for diagnostics. See appropriate rack drawing.
3) Connect via ribbon to ICS-115A DAC module. See appropriate rack drawing.
4) Connect to ASC Dewhitening filter modules. See ASC drawing set.
4) Connect to LSC Dewhitening filter modules. See LSC drawing set

REFERENCE DRAWINGS			
DWG. NO.	DESCRIPTION	DWG. NO.	DESCRIPTION

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONAL ±
ANGULAR:MACH ± BEND ±
TWO PLACE DECIMAL ±
THREE PLACE DECIMAL ±
FINISHED SURFACE RMS
BREAK CORNERS: IN OUT:
REMOVE ALL BURRS

DO NOT SCALE THIS DRAWING

USED ON:

NEXT ASS'Y:

ISSUE DESCRIPTION			
REV	DESCRIPTION	SHEETS EFFECTED	DATE

CURRENT REVISION APPROVAL			
	DRAWN	GROUP	SIGNATURE	DATE
CHECKED		R. Bork		1/21/00
		DCC		

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Livingston Timing System Cable Diagram
LVEA Master Clock Distribution

SCALE	SIZE	DWG. NO.	REV.
	B	D990083-A-C	
CAD FILE	SCALE	SHEET 2 of 4	STD	VER. D1

6 5 4 3 2 1

GPSA 42

GPSA 41

EXPB-1

COND_EXR-1_EXPB-1

COND_EXPB-1_1X20

L0:CDS-GPA_402

L0:CDS-GPA_401

Rack 1X20

VME1 GPS2

Clock Master

J3

J1

J2

J4

L0:CDS-GPC_401

L0:CDS-GPC_402

VME1 GPSCF1

J9

J10

J1

J2

J3

J4

J5

J6

J7

J8

1PPS

Clock

L0:CDS-GPC_403

VME1 GPSCD1

GPS IN

P3

GPS OUT

1 PPS/Ramp

1 PPS

CLK

Frame TC

Acq Sync

VME1 GPSCD2

GPS IN

P3

GPS OUT

1 PPS/Ramp

1 PPS

CLK

Frame TC

Acq Sync

L0:CDS-GPC_406

L0:CDS-GPC_404

Rack 1X21

VME1 GPS1

Time Master

J3

J1

J2

VME1 GPSCD1

GPS IN

P3

GPS OUT

1 PPS/Ramp

1 PPS

CLK

Frame TC

Acq Sync

L0:CDS-GPC_405

VME1 PTO1

Clk

Clk In

Ch 1

Ch 2

Ch 3

Ch 4

Ch 5

Ch 6

Ch 7

Ch 8

Clk Mon

				UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL ± ANGULAR MACH ± BEND ± TWO PLACE DECIMAL ± THREE PLACE DECIMAL ± FINISHED SURFACE RMS BREAK CORNERS ON OUT. REMOVE ALL BURRS					CURRENT REVISION APPROVAL			
										DRAWN	GROUP	SIGNATURE	DATE
										CHECKED	R. Bork		1/21/00
DWG. NO.	DESCRIPTION	DWG. NO.	DESCRIPTION	DO NOT SCALE THIS DRAWING	REV	DESCRIPTION	SHEETS EFFECTED	DATE					
REFERENCE DRAWINGS				USED ON:	ISSUE DESCRIPTION					DCC			
				NEXT ASS'Y:									

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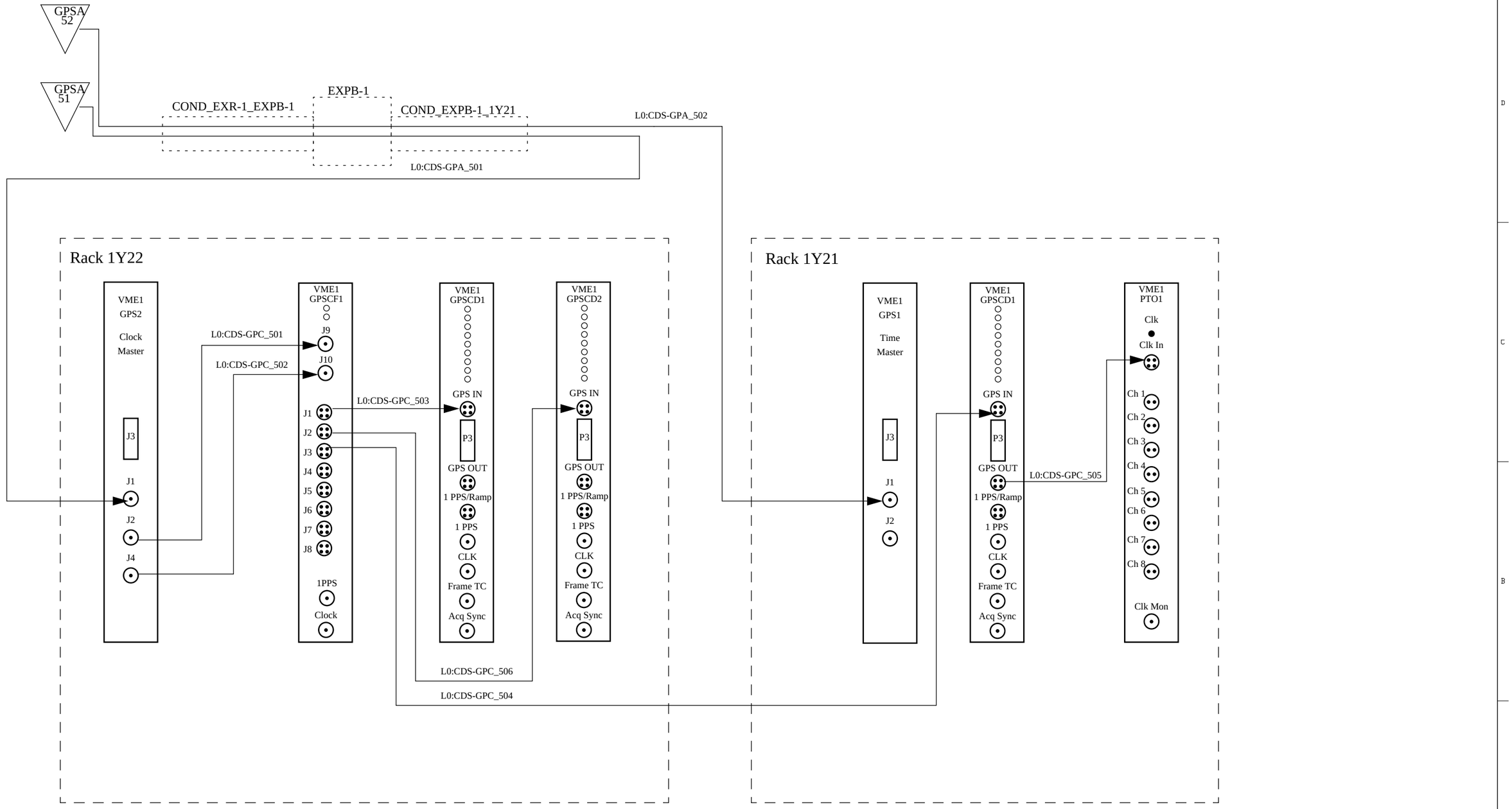
Livingston Timing System Cable Diagram
X Arm End Station

SCALE	SIZE	DWG. NO.	REV.
	B	D990083-A-C	
CAD FILE SCALE	SHEET 3 of 4 STD		VER. D1

6 5 4 3 2 1

D C B A



UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONAL ±
ANGULAR MACH ± BEND ±
TWO PLACE DECIMAL ±
THREE PLACE DECIMAL ±
FINISHED SURFACE RMS
BREAK CORNERS IN OUT.
REMOVE ALL BURRS

DO NOT SCALE THIS DRAWING

USED ON:

NEXT ASS'Y:

DWG. NO.	DESCRIPTION	DWG. NO.	DESCRIPTION
REFERENCE DRAWINGS			

REV	DESCRIPTION	SHEETS EFFECTED	DATE
ISSUE DESCRIPTION			

CURRENT REVISION APPROVAL

	DRAWN	GROUP	SIGNATURE	DATE
CHECKED		R. Bork		1/21/00
DCC				

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Livingston Timing System Cable Diagram Y Arm End Station

SCALE	SIZE	DWG. NO.	REV.
	B	D990083-A-C	
CAD FILE SCALE	SHEET 4 of 4 STD		VER. D1

6 5 4 3 2 1