LASER INTERFEROMETER GRAVITATIONAL WAVE OBSERVATORY
- LIGO -
CALIFORNIA INSTITUTE OF TECHNOLOGY
MASSACHUSETTS INSTITUTE OF TECHNOLOGY

Document Type	**LIGO-T970089-06 - P**	8/28/97

LIGO On-line Documents
August 1997

W. E. Althouse

Distribution of this draft:

/home/dcc/docs/A_INDEX.pdf

This revision indexes all documents stored in /home/dcc/docs through 8/28/97, except those which have been replaced by a newer verion.

This is an internal working note
of the LIGO Project.

California Institute of Technology
LIGO Project - MS 51-33
Pasadena CA 91125
Phone (818) 395-2129
Fax (818) 304-9834
E-mail: info@ligo.caltech.edu

Massachusetts Institute of Technology
LIGO Project - MS 20B-145
Cambridge, MA 01239
Phone (617) 253-4824
Fax (617) 253-7014
E-mail: info@ligo.mit.edu

WWW: http://www.ligo.caltech.edu/

1 LIGO TOP-LEVEL DOCUMENTS

1.1. DCC Information

T970050-xx DCC Document Listing
L960641-05 Electronic Submissions to the Document Control Center (instructions)
G960249-00 Electronic Submissions to LIGO Document Control Center (DCC) (flowchart)
L970164-02 Procedures for Release of Controlled Drawings and Specifications
E960024-00 Document Change Notice (DCN) -- completed example

1.2. Management Documentation

1.2.1. Project Plans and Policies

M950046-A LIGO PROJECT SYSTEM SAFETY PLAN
M960076-A LIGO PROJECT QUALITY ASSURANCE PLAN
E960099-B LIGO RELIABILITY PROGRAM PLAN

1.2.2. Annual Reports

M970007-01 Annual Report (December 1995 through November 1996)

1.2.3. Quarterly Reports

M960024-00 Quarterly Progress Report (December 1995 through February 1996)
M960055-00 Quarterly Progress Report (March 1996 through May 1996)
M970034-00 Quarterly Report (December 1996 through February 1997)
M970080-00 Quarterly Report (March 1997 through May 1997)

1.2.4. Monthly Reports

M970017-01 Monthly Progress Report (End of December 1996)
M970033-00 Monthly Progress Report (End of January 1997)
M970042-00 Monthly Progress Report (End of March 1997)

1.2.5. Proposals

M950020-01 LIGO Operations, 1997-2001
M960051-A LETTER OF INTENT FOR A RESEARCH AND DEVELOPMENT PROGRAM FOR ADVANCED LIGO DETECTORS BY THE LIGO MIT/ CALTECH GROUPS
M970001-01 Revised Proposal for a Research and Development Program For Advanced Detectors by the LIGO MIT/Caltech Groups - FY 1997 Proposal Budget

1.2.6. Reviews

1.2.6.1 NSF Review April 13-17, 1997

G970068-00 LIGO DATA PROCESSING

G970071-01 BEAM TUBE BAKEOUT
G970075-01 LIGO Project Cost/Schedule Status
G970091-00 LIGO Control and Data System Control and Monitoring

1.3. Publications

P940008-00 Measurement of Optical Path Fluctuations due to Residual Gas in the LIGO 40 Meter Interferometer
P950017-02 The Laser Interferometer Gravitational-Wave Observatory (LIGO) Project
P960024-A PRINCIPLES OF CALCULATING ALIGNMENT SIGNALS IN COMPLEX RESONANT OPTICAL INTERFEROMETERS
P960031-C The Laser Interferometer Gravitational Wave Observatory Project LIGO
P960041-02 Recent Research on the LIGO 40 m Interferometer
P960042-00 Development of Laser Interferometers for Gravitational Wave Detection: Abstract and Summary
P970002-00 Modeling LIGO Data Analysis

1.4. System Engineering Documentation

1.4.1. System Requirements

D970307-00 LIGO SYSTEMS FUNCTIONAL BLOCK DIAGRAM
E950018-02 LIGO Science Requirements Document (SRD)
E950111-A LIGO Naming Conventions
E960036-A LIGO EMI CONTROL PLAN AND PROCEDURES
E960099-B LIGO RELIABILITY PROGRAM PLAN
E960010-A LIGO Sites Alignment Requirements
E950083-B Science Requirements for the LIGO Beam Tube Baffles
T970130-A Specification of a Common Data Frame Format for Interferometric Gravitational Wave Detectors (IGWD)

1.4.2. Modeling and Data Analysis

G970064-00 Modeling LIGO Data Analysis
G970135-00 What We've Learned About What We've Learned About "FRAMES"
G970156-00 Computer Languages Computer Languages why all the fuss about why all the fuss about C++
T970100-A LIGO Data Analysis Software Specification Issues
T970101-A Strain Calibration in LIGO
M970013-00 A Proposal for the First Experiment for Validation of the 40m End-to-End Model
M970065-B White Paper Outlining the Data Analysis System (DAS) for LIGO I
T970128-01 Quantization Noise in Ligo Interferometers

1.4.3. Alignment

E960010-A LIGO Sites Alignment Requirements
L960348-01 LIGO Coordinate Names and Reference Designations - CAUTION
T950004-B Derivation of Global and Local Coordinate Axes for the LIGO Sites

T950107-A Orientation of the LIGO Beam Center Lines with respect to foundation slabs
T960176-C Determination of the as-built LIGO Global Coordinate Axes for Hanford, WA
T960042-A Alignment Tolerances and Re-Alignment Criteria for the LIGO Beam Tubes
T970117-A LIGO Site-to-Site Separation

1.4.4. Testing, Measurements and Analysis

T960128-00 Radiation Pressure Noise in LIGO
T970054-00 Beam Tube Dynamics

1.4.5. Layout Drawings

T960051-02 INTEGRATED LAYOUT DRAWINGS: USAGE & MAINTENANCE
D970008-A Chamber & Rack Designations - WA (Corner Station)
D970009-A Chamber & Rack Designations - WA (Mid Station)
D970010-A Chamber & Rack Designations - WA (End Station)

1.4.6. Other

E950107-00 LIGO Foundation Thickness Decision: Minutes of Integration Meeting on 8 December 1995
E950108-00 LIGO Configuration Change to Nd:YAG Lasers: Impact on Facilities Chiller Requirements
T950066-02 RESPONSE TO MULTIPLE ACTION ITEMS IN PARSONS' "REQUIREMENTS DEFINITION WORKSHEET"

2 FACILITIES DOCUMENTATION

2.1. Vacuum Equipment

2.2. Beam Tube

2.2.1. Design Requirements and Qualification

T960042-A Alignment Tolerances and Re-Alignment Criteria for the LIGO Beam Tubes
T960125-00 Beam Tube Qualification Test

2.2.2. Baffles

E950083-B Science Requirements for the LIGO Beam Tube Baffles
E960028-A Specification, Porcelain Coating of Beam Tube Baffles
E960037-A COMPONENT SPECIFICATION: MECHANICAL FABRICATION OF BEAM TUBE BAFFLES
E960038-00 DCN for E960028-A and E960037-A
T970053-00 Baffle Glaze Shedding

2.2.3. Bakeout

E960123-03 Beam Tube Bakeout Design Requirements Document
E970125-A COMPONENT SPECIFICATION: BEAM TUBE MODULE INSULATION
T960124-00 ISSUES AND CONSIDERATIONS ON THE BEAM TUBE BAKE
T960178-01 Beam Tube Bakeout Conceptual Design
T970148-00 Beam Tube Bakeout Preliminary Design
G960181-00 BEAM TUBE BAKEOUT
G960241-00 BEAM TUBE BAKEOUT DESIGN REQUIREMENTS REVIEW
L970483-00 Beam Tube Bakeout Design Requirements Review - Responses to Recommendations
G970217-00 BEAM TUBE BAKEOUT PRELIMINARY DESIGN REVIEW

2.2.4. Testing, Measurements and Analysis

T970054-00 Beam Tube Dynamics
T970110-00 Information for the Beam Tube Pumpdown
T970111-00 Data from Beam Tube Pump Down II
L970429-00 Technical Board Meeting to Review Beam Tube HX2 Vacuum Test Results

2.3. Civil Construction

2.3.1. Design Requirements

E950101-00 Telecommunications requirements for Hanford, WA Site.
E950106-00 LIGO Requirements and Options for Facilities Monitoring and Control System (FMCS)

3 DETECTOR DOCUMENTATION

3.1. Detector System Documentation

E960112-05 Detector Subsystems Requirements
E960022-03 LIGO Vacuum Compatibility, Cleaning Methods and Qualification Procedures
E960050-A LIGO Vacuum Compatible Materials List
T950065-A Guidelines for Design Requirement Documents
L970196-00 Part Numbers and Serialization of Detector Hardware
L970164-02 Procedure for Release of Controlled Drawings and Specifications

T960083-A Derivation of CDS Rack Acoustic Noise Specifications
E960108-A Recommendation of parameter choices in 2 km interferometer design.
T960019-00 Frequency, Intensity and Oscillator Noise in the LIGO
T960120-00 Misalignment-Beam Jitter Coupling in LIGO
T960122-00 Proposed initial detector MC and RC baseline lengths
T970068-00 Recycling Cavity and Mode Cleaner Cavity Baseline Dimensions
D970002-00 Recycling Cavity Dimensional Range
D970003-00 Recycling Cavity Layout
T960128-00 Radiation Pressure Noise in LIGO

T960136-00 Estimates for Motions due to Sound Fields
T960140-00 Fast Estimation of Transverse Fields in High Finesse Optical Cavities
T960189-00 LIGO calibration accuracy
T970007-00 Modelling the Performance of an Initial-LIGO Detector with Realistically Imperfect Optics
G960250-00 Modelling the Performance of an Initial-LIGO Interferometer with Realistically-Deformed Optics
L970042-00 Internal Modes of Testmasses
T970077-00 Gravitational Deflection of LIGO Optics in a 9-Point Hindle Mount
T970091-00 Determination of the Wedge Angles for the Core Optics Components
T952008-00 A Tutorial For the Fast Fourier Transform Interferometer Simulator
G950061-02 A Summary and Future Preview of the FFT Simulation Initiative in LIGO
T960187-01 Effect of Microseismic Noise on a LIGO Interferometer
T970059-01 The Effect of Earth Tides on LIGO Interferometers
T970101-A Strain Calibration in LIGO
T970128-01 Quantization Noise in Ligo Interferometers
T970149-00 Influence of the stray magnetic field generated by the Faraday isolator on SOS mirror actuators

3.2. Suspensions and Seismic Isolation

3.2.1. Suspensions

T950011-17 Suspension Design Requirements
E970037-00 SMALL OPTICS SUSPENSION ASSEMBLY SPECIFICATION
E970080-00 SMALL OPTICS SUSPENSION ASSEMBLY QUALITY CONFORMANCE WORKSHEET
T960074-07 Suspension Preliminary Design
E960098-01 PRELIMINARY DESIGN REVIEW Suspension System (SUS)
L970338-00 Settlement of SUS PDR Action Items for SOS
T970135-02 Small Optics Suspension Final Design (Mechanical System)
T960179-00 Small Optics Suspension Prototype Test Results

T960151-01 Large and Small Optics Suspension Electronics Design Requirements
T970113-00 Large and Small Optics Suspension Electronics Preliminary Design
G970219-00 LIGO LOS and SOS Electronics PDR

E970123-00 LIGO SUSPENSION SYSTEM RELIABILITY PREDICTION REPORT
L960596-00 Cross-coupling in the suspension controllers
T960040-00 RESPONSE OF PENDULUM TO MOTION OF SUSPENSION POINT
T960126-01 Magnet size considerations; interference and coil power dissipation
T960137-00 Note on Electrostatics in the LIGO suspensions
T970149-00 Influence of the stray magnetic field generated by the Faraday isolator on SOS mirror actuators

3.2.2. Seismic Isolation

T960065-03 Seismic Isolation Design Requirements Document

T960066-00 Seismic Isolation Conceptual Design
M960038-00 DESIGN REQUIREMENTS REVIEW Seismic Isolation
M970104-00 PRELIMINARY DESIGN REVIEW: Seismic Isolation System (SEI)
M970082-01 FIRST ARTICLE FABRICATION READINESS REVIEW Seismic Isolation System (SEI): In Vacuo Hardware
T970142-00 Action Item Response Report: FIRST ARTICLE FABRICATION READINESS REVIEW for the Seismic Isolation System (SEI)
L970061-01 Specification Guidance for Seismic Component Cleaning, Baking and Shipping PreparationLasers and Optics
E970063-01 LIGO Seismic Isolation System: Fabrication Process Specification

3.3. Lasers and Optics

3.3.1. General Documentation

L970042-00 Internal Modes of Testmasses
T970077-00 Gravitational Deflection of LIGO Optics in a 9-Point Hindle Mount
T970091-00 Determination of the Wedge Angles for the Core Optics Components
G950061-02 A Summary and Future Preview of the FFT Simulation Initiative in LIGO

3.3.2. Prestabilized Laser

E950081-06 Nd 3+ Laser Target Specifications
T950030-03 Prestabilized Laser Design Requirements
M970044-00 LIGO Detector Review Report - Preliminary Design Review (PDR) - Design and Fabrication of Nd3+ Lasers
L970108-00 (Review of) LightWave Electronics (LWE) Laser Reliability Plan

3.3.3. Input Output Optics

T960093-02 Input Output Optics Design Requirements Document
L970447-00 Settlement of IOO DRR Action Items
T970143-00 Design Considerations for LIGO Mode-Matching Telescopes
T970144-00 Input Optics Preliminary Design
T970149-00 Influence of the stray magnetic field generated by the Faraday isolator on SOS mirror actuators

3.3.4. Core Optics

E950099-04 Core Optics Components Requirements (1064 nm)
T970071-01 Core Optics Support Design Requirements Document
T970072-01 Core Optics Support Conceptual Design
G970067-00 Core Optics Support Design Requirements Review
T970109-00 Spectral Analysis of Coated Optic Phase Maps

3.3.4.1 Recycling Mirror Specifications

3.3.4.2 Input Test Mass Specifications

E960093-A COMPONENT SPECIFICATION: SUBSTRATE, INPUT TEST MASS
D960787-A INPUT TEST MASS SUBSTRATE, 4K
D960803-A INPUT TEST MASS SUBSTRATE, 2K
E960095-A COMPONENT SPECIFICATION: MIRROR BLANK MATERIAL, INPUT TEST MASS

3.3.4.3 Beam Splitter Specifications

E960100-A COMPONENT SPECIFICATION: SUBSTRATE, BEAM SPLITTER
D960789-A BEAM SPLITTER SUBSTRATE
E960094-A COMPONENT SPECIFICATION: MIRROR BLANK MATERIAL, BEAM SPLITTER

3.3.4.4 End Test Mass Specifications

E960102-A COMPONENT SPECIFICATION: SUBSTRATE, END TEST MASS
D960791-A END TEST MASS SUBSTRATE
E960097-A COMPONENT SPECIFICATION: MIRROR BLANK MATERIAL, FOLDING MIRROR, END TEST MASS

3.3.4.5 Folding Mirror Specifications

E960101-A COMPONENT SPECIFICATION: SUBSTRATE, FOLDING MIRROR
D960790-A FOLDING MIRROR SUBSTRATE
E960097-A COMPONENT SPECIFICATION: MIRROR BLANK MATERIAL, FOLDING MIRROR, END TEST MASS

3.3.5. Core Optics Components Carrying Case Drawings

D970085-A Project Material List - Large Core Optic Component (COC) and Beam Splitter Optic Assemblies
D970064-B COC Carrier Shipping Compartment Assembly
D970065-B COC Carrier Shipping Compartment Details

3.3.5.1 Large Core Optics Component Carrier Assembly

D961460-B Large Core Optic Component (COC) Carrier Assembly
  D970006-B Material List - Large Core Optic Component (COC) Carrier Assembly

  D961425-C Core Optic Component (COC) Carrier, Base Assembly
    D961421-D Core Optic Component (COC) Carrier, Base Plate
    D961422-A Core Optic Component (COC) Carrier, Base Pad
    D961424-B Core Optic Component (COC) Carrier, Base Cover
    D961451-A Core Optic Component (COC) Carrier, Handle Plate

  D961434-B Large Core Optic Component (COC) Carrier, Standoff Assembly
    D961423-A Core Optic Component (COC) Carrier, Side Pad
    D961426-B Core Optic Component (COC) Carrier, Pressure Disc

D961432-A Large Core Optic Component (COC) Carrier, Standoff

D961444-B Large Core Optic Component (COC) Carrier, Hinged Standoff Assembly
- D961423-A Core Optic Component (COC) Carrier, Side Pad
- D961426-B Core Optic Component (COC) Carrier, Pressure Disc
- D961440-A Large Core Optic Component (COC) Carrier, Standoff Bracket
- D961442-A Large Core Optic Component (COC) Carrier, Hinged Standoff
- D961473-A Core Optic Component (COC) Carrier, Standoff Clevis Pin

D961454-B Large Core Optic Component (COC) Carrier, Indexed Standoff Assembly
- D961423-A Core Optic Component (COC) Carrier, Side Pad
- D961426-B Core Optic Component (COC) Carrier, Pressure Disc
- D961452-A Large Core Optic Component (COC) Carrier, Indexed Standoff

D961450-B Core Optic Component (COC) Carrier, Top Plate Assembly
- D961449-C Core Optic Component (COC) Carrier, Top Plate
- D961466-A Core Optic Component (COC) Carrier, Pad Guide
- D970005-A Core Optic Component (COC) Carrier, Toggle Screw, Modified
- D961418-A Core Optic Component (COC) Carrier, Foot Assembly
  - D961469-B Core Optic Component (COC) Carrier, Foot
  - D961470-A Core Optic Component (COC) Carrier, Foot Pad
- D961471-A Core Optic Component (COC) Carrier, Captive Screw Bracket Assembly
  - D961431-A Core Optic Component (COC) Carrier, Captive Screw
  - D961447-A Core Optic Component (COC) Carrier, Captive Screw Bracket
  - D970001-A Core Optic Component (COC) Carrier, Captive Screw Retaining Ring
- D961472-A Core Optic Component (COC) Carrier, Captive Screw Bracket Assembly, Locating
  - D961431-A Core Optic Component (COC) Carrier, Captive Screw
  - D961448-A Core Optic Component (COC) Carrier, Captive Screw Bracket, Locating
  - D970001-A Core Optic Component (COC) Carrier, Captive Screw Retaining Ring

D961419-B Core Optic Component (COC) Carrier, Cover Assembly
- D961416-B Core Optic Component (COC) Carrier, Carrier Cover

D970061-A Core Optic Component (COC) Carrier, Seal Plate

D970004-B Core Optic Component (COC) Carrier, Expansion Plug Installation Tool

D970168-B Core Optic Component (COC) Carrier, Protective Sheet Assembly
- D970167-B Core Optic Component (COC) Carrier, Protective Sheet
- D970166-B Core Optic Component (COC) Carrier, Protective Sheet Bracket

3.3.5.2 Beam Splitter Optic Carrier Assembly

D961461-B Beam Splitter Optic (BSO) Carrier Assembly
- D970007-B Material List - Beam Splitter Optic (BSO) Carrier Assembly

D961425-C Core Optic Component (COC) Carrier, Base Assembly
- D961421-D Core Optic Component (COC) Carrier, Base Plate
- D961422-A Core Optic Component (COC) Carrier, Base Pad
- D961424-B Core Optic Component (COC) Carrier, Base Cover
- D961451-A Core Optic Component (COC) Carrier, Handle Plate

D961435-B	Beam Splitter Optic (BSO) Carrier, Standoff Assembly
D961423-A	Core Optic Component (COC) Carrier, Side Pad
D961426-B	Core Optic Component (COC) Carrier, Pressure Disc
D961433-A	Beam Splitter Optic (BSO) Carrier, Standoff
D961445-B	Beam Splitter Optic (BSO) Carrier, Hinged Standoff Assembly
D961423-A	Core Optic Component (COC) Carrier, Side Pad
D961426-B	Core Optic Component (COC) Carrier, Pressure Disc
D961440-A	Large Core Optic Component (COC) Carrier, Standoff Bracket
D961443-A	Beam Splitter Optic (BSO) Carrier, Hinged Standoff
D961473-A	Core Optic Component (COC) Carrier, Standoff Clevis Pin
D961455-B	Beam Splitter Optic (BSO) Carrier, Indexed Standoff Assembly
D961423-A	Core Optic Component (COC) Carrier, Side Pad
D961426-B	Core Optic Component (COC) Carrier, Pressure Disc
D961453-A	Beam Splitter Optic (BSO) Carrier, Indexed Standoff
D961450-B	Core Optic Component (COC) Carrier, Top Plate Assembly
D961418-A	Core Optic Component (COC) Carrier, Foot Assembly
D961469-B	Core Optic Component (COC) Carrier, Foot
D961470-A	Core Optic Component (COC) Carrier, Foot Pad
D961449-C	Core Optic Component (COC) Carrier, Top Plate
D961466-A	Core Optic Component (COC) Carrier, Pad Guide
D961471-A	Core Optic Component (COC) Carrier, Captive Screw Bracket Assembly
D961431-A	Core Optic Component (COC) Carrier, Captive Screw
D961447-A	Core Optic Component (COC) Carrier, Captive Screw Bracket
D970001-A	Core Optic Component (COC) Carrier, Captive Screw Retaining Ring
D961472-A	Core Optic Component (COC) Carrier, Captive Screw Bracket Assembly, Locating
D961431-A	Core Optic Component (COC) Carrier, Captive Screw
D961448-A	Core Optic Component (COC) Carrier, Captive Screw Bracket, Locating
D970001-A	Core Optic Component (COC) Carrier, Captive Screw Retaining Ring
D970005-A	Core Optic Component (COC) Carrier, Toggle Screw, Modified
D961419-B	Core Optic Component (COC) Carrier, Cover Assembly
D961416-B	Core Optic Component (COC) Carrier, Carrier Cover
D970061-A	Core Optic Component (COC) Carrier, Seal Plate
D970004-B	Core Optic Component (COC) Carrier, Expansion Plug Installation Tool
D970171-B	Beam Splitter Optic (BSO) Carrier, Protective Sheet Assembly
D970170-B	Beam Splitter Optic (BSO) Carrier, Protective Sheet
D970166-B	Core Optic Component (COC) Carrier, Protective Sheet Bracket

3.3.5.3 Metrology Interface Top Plate Assembly

D961468-B	Core Optic Component (COC) Carrier, Metrology Interface Top Plate Assembly
D961418-A	Core Optic Component (COC) Carrier, Foot Assembly
D961469-B	Core Optic Component (COC) Carrier, Foot
D961470-A	Core Optic Component (COC) Carrier, Foot Pad
D961466-A	Core Optic Component (COC) Carrier, Pad Guide
D961467-C	Core Optic Component (COC) Carrier, Metrology Interface Top Plate
D961471-A	Core Optic Component (COC) Carrier, Captive Screw Bracket Assembly
D961431-A	Core Optic Component (COC) Carrier, Captive Screw

D961447-A	Core Optic Component (COC) Carrier, Captive Screw Bracket
D970001-A	Core Optic Component (COC) Carrier, Captive Screw Retaining Ring
D961472-A	Core Optic Component (COC) Carrier, Captive Screw Bracket Assembly, Locating
D961431-A	Core Optic Component (COC) Carrier, Captive Screw
D961448-A	Core Optic Component (COC) Carrier, Captive Screw Bracket, Locating
D970001-A	Core Optic Component (COC) Carrier, Captive Screw Retaining Ring
D970005-A	Core Optic Component (COC) Carrier, Toggle Screw, Modified
D970006-B	Material List - Large Core Optic Component (COC) Carrier Assembly
D970007-B	Material List - Beam Splitter Optic (BSO) Carrier Assembly
D970085-A	Project Material List - Large Core Optic Component (COC) and Beam Splitter Optic Assemblies

3.4. Alignment and Length Sensing

3.4.1. Alignment Sensing/Control

T952007-04	Alignment Sensing/Control Design Requirements Document
T960134-00	Alignment Sensing/Control Conceptual Design
T970060-00	Alignment Sensing/Control Preliminary Design
T952013-00	Alignment Design Interfaces
T960103-00	ASC: Environmental Input to Alignment noise
T950049-00	ASC Centering Subsystem Description
T950069-00	Naming and Interface Definition for ASC Wavefront/Centering
T950073-00	Interferometer Requirement Flowdown To ASC
T950074-00	Naming and Interface Definition for ASC Initial Alignment
T970063-00	Response to Alignment Sensing and Control DRR2 Action Items
T970061-00	ASC CDS Design Requirements Document
T970062-00	ASC CDS Conceptual Design
T960138-00	ASC Channel Count

3.4.1.1 Optical Lever

T950106-01	ASC Optical Lever Design Requirement Document
T950112-00	ASC Optical Lever Specification and Design Document
T950070-00	Naming Convention and Interface Definition for Optical Lever

3.4.1.2 Wavefront Sensing

T960111-A	WAVEFRONT SENSOR
T960113-00	Modal Model Update 1: Interferometer Operators
T960114-B	Modal Model Update 2: GW-Sensitivity to Angular Misalignments
T960115-A	Modal Model Update 3: Small Angle Regime
T960116-00	Modal Model Update 4: Mode Mismatch
T960191-00	Modal Model Update 5 Large Angle Regime
T960118-00	Modal Model Update 6: Mode Cleaner
T970058-00	Modal Model Update 7 Angular Transfer Functions

3.4.2. Length Sensing/Control

T960058-03 Length Sensing and Control Design Requirements Document
T970138-00 LSC CDS Design Requirements
T970139-00 LSC CDS Conceptual Design
T970122-00 Length Sensing and Control Subsystem Preliminary Design
T952109-01 LIGO Length Sensing System: Design considerations for a tabletop prototype interferometer
T960067-00 Length Control RMS Deviations from Resonance
T960139-00 Shot noise sensitivity of the length control error signals
T970084-00 Frequency Response of the LIGO Interferometer
T970101-A Strain Calibration in LIGO
G970192-00 Length Sensing and Control Subsystem Preliminary Design Review

3.5. Control and Data System

T950054-02 CDS Control and Monitoring Design Requirements Document
T950120-01 CDS Control and Monitoring Conceptual Design
T960010-00 CDS Data Acquisition System Conceptual Design
T970136-00 CDS Data Acquisition Preliminary Design

T960151-01 Large and Small Optics Suspension Electronics Design Requirements
T970113-00 Large and Small Optics Suspension Electronics Preliminary Design
G970219-00 LIGO LOS and SOS Electronics PDR

T970061-00 ASC CDS Design Requirements Document
T970062-00 ASC CDS Conceptual Design

T970138-00 LSC CDS Design Requirements
T970139-00 LSC CDS Conceptual Design

T960107-00 LIGO Interferometer Diagnostics System Design Requirements
T960108-00 Interferometer Diagnostics Conceptual Design

T960024-A Vacuum Control and Monitoring System (VCMS) Design Requirements
T960037-00 Vacuum Control and Monitoring System (VCMS) Design
T970001-00 Vacuum Control and Monitoring System (VCMS) Final Design

T960014-00 Vacuum Feedthrough and Cabling Conceptual Design

T960177-00 LIGO Cable Numbering and Marking Standard
T970076-00 LIGO CDS VME Mainframe Specification
T960083-A Derivation of CDS Rack Acoustic Noise Specifications

3.6. Physical Environment Monitor

T960127-02 Physical Environmental Monitor Design Requirements Document

T960145-00 Physical Environmental Monitor Conceptual Design
T970086-00 Physical Environmental Monitor Preliminary Design Document
G970026-00 Physics Environment Monitoring Preliminary Design Review
L970028-00 DESIGN REQUIREMENTS REVIEW Physics Environment Monitoring (PEM) Action Item Responses

4 R&D DOCUMENTATION

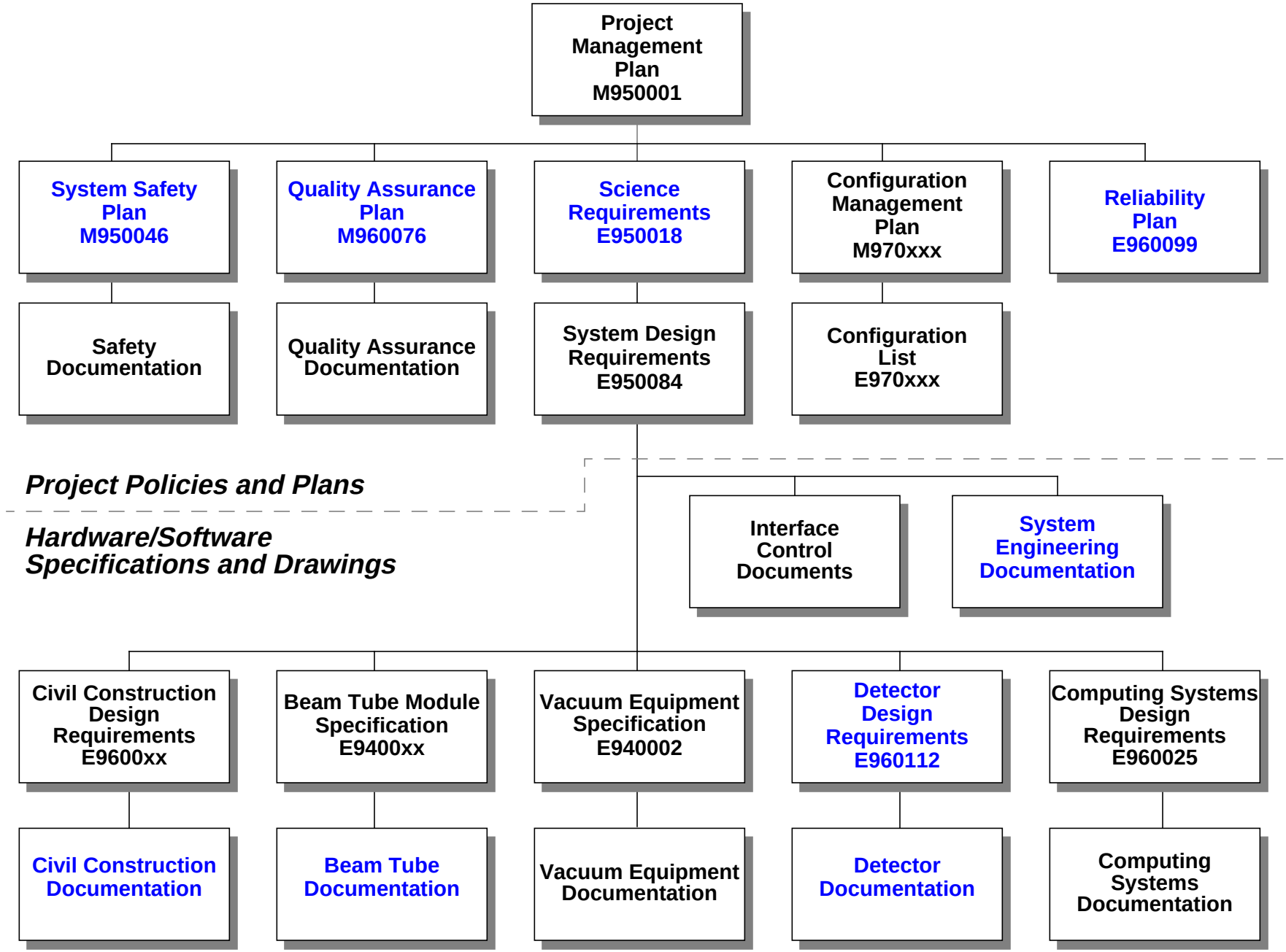
D961304-06 OPTICAL LAYOUT - 40m RECYCLING

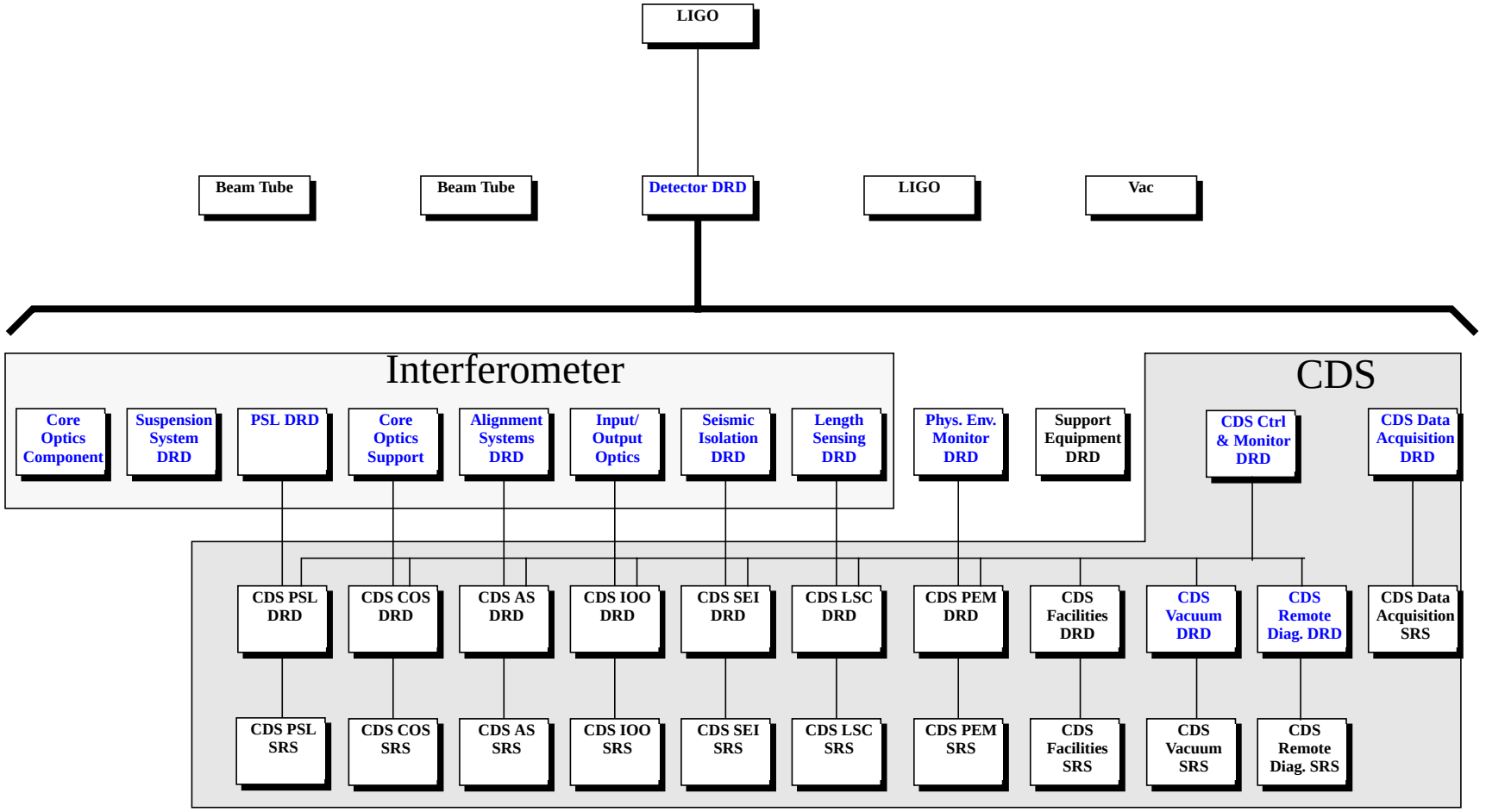
G960172-00 THE FMI ALIGNMENT EFFORT
G970152-01 LIGO@ MIT: Transition to Operations and Advanced Detector R& D

M960114-00 Statement of Work: Replacement of Vertex Masses at 40m
M960115-00 Statement of Work: Installation of Side Chamber and Reconfiguration of Associated Optics at the 40m
M970013-00 A Proposal for the First Experiment for Validation of the 40m End-to-End Model

T950035-01 Measurement of the Ground Drift at the 40-m Lab
T950137-00 Description of the Electronics for the FMI Wavefront Experiment
T960013-01 Calculation of the Modulation Frequency for the 40m Power Recycling Interferometer
T960015-02 Calculation of Optical Parameters for the 40m Power Recycling Interferometer
T960072-00 Beam Splitter and Recycling Mirror Suspension Controller Design Requirements
T960073-00 40 Meter Recycling Electronics Design Requirements
T960162-02 Specifications of the 40m Test Mass Suspension Prototype
T960186-00 Procedure for Attaching the Fins and Hanging the PNI Mirrors
T970085-00 Correlation Function and Power Spectrum of Non-Stationary Shot Noise
T970090-00 Proposal for a table-top prototype resonant sideband extraction interferometer
T970099-00 Statement of Work: Change of Modulation Frequency at the 40m
T970102-00 40 Meter BS and RCM Suspension Controller Test Plan
T970103-00 BS and RCM Suspension Electronics Operator's Manual

LIGO CONFIGURATION DOCUMENTATION





LIGO-T970089-06