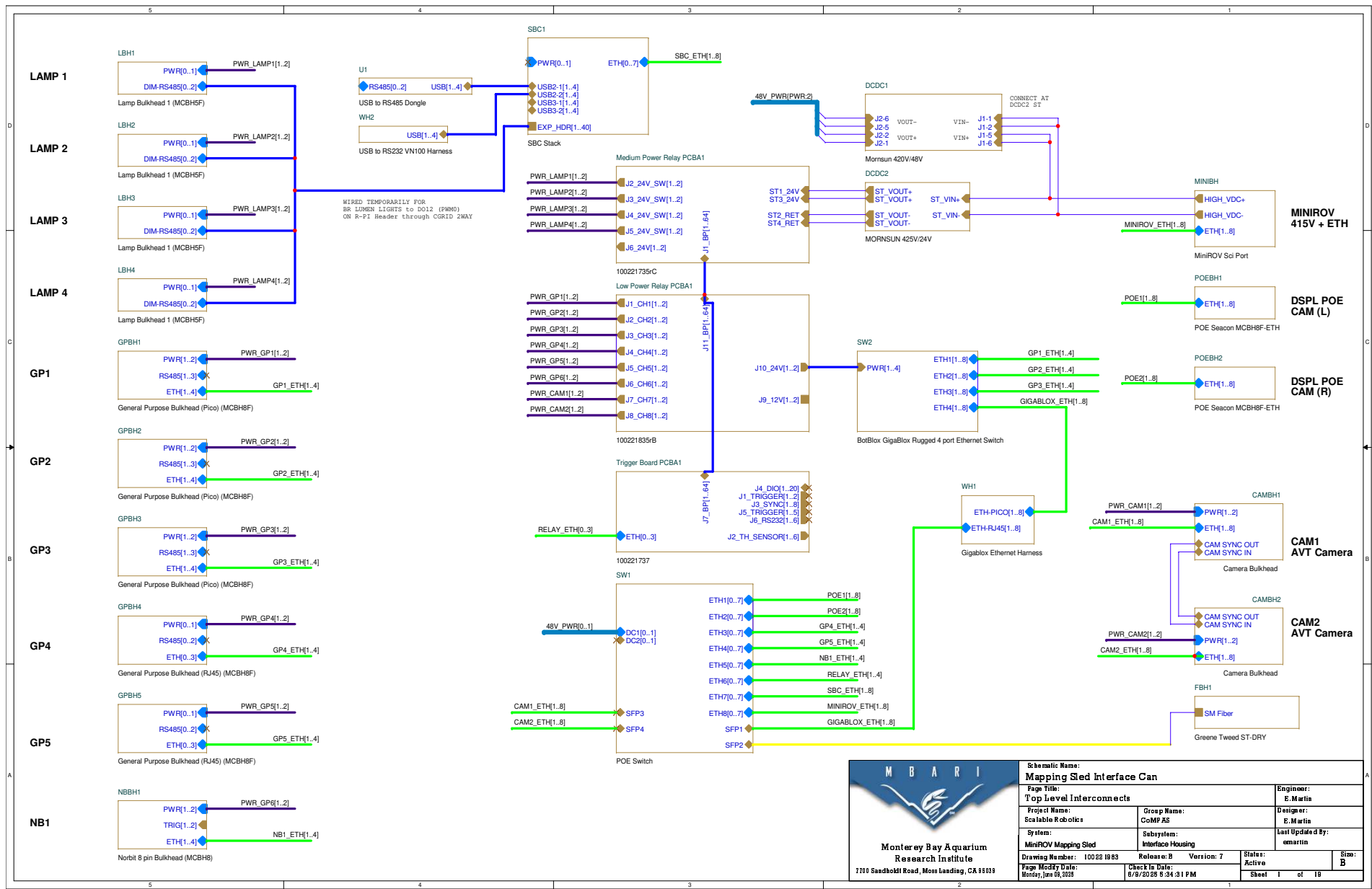
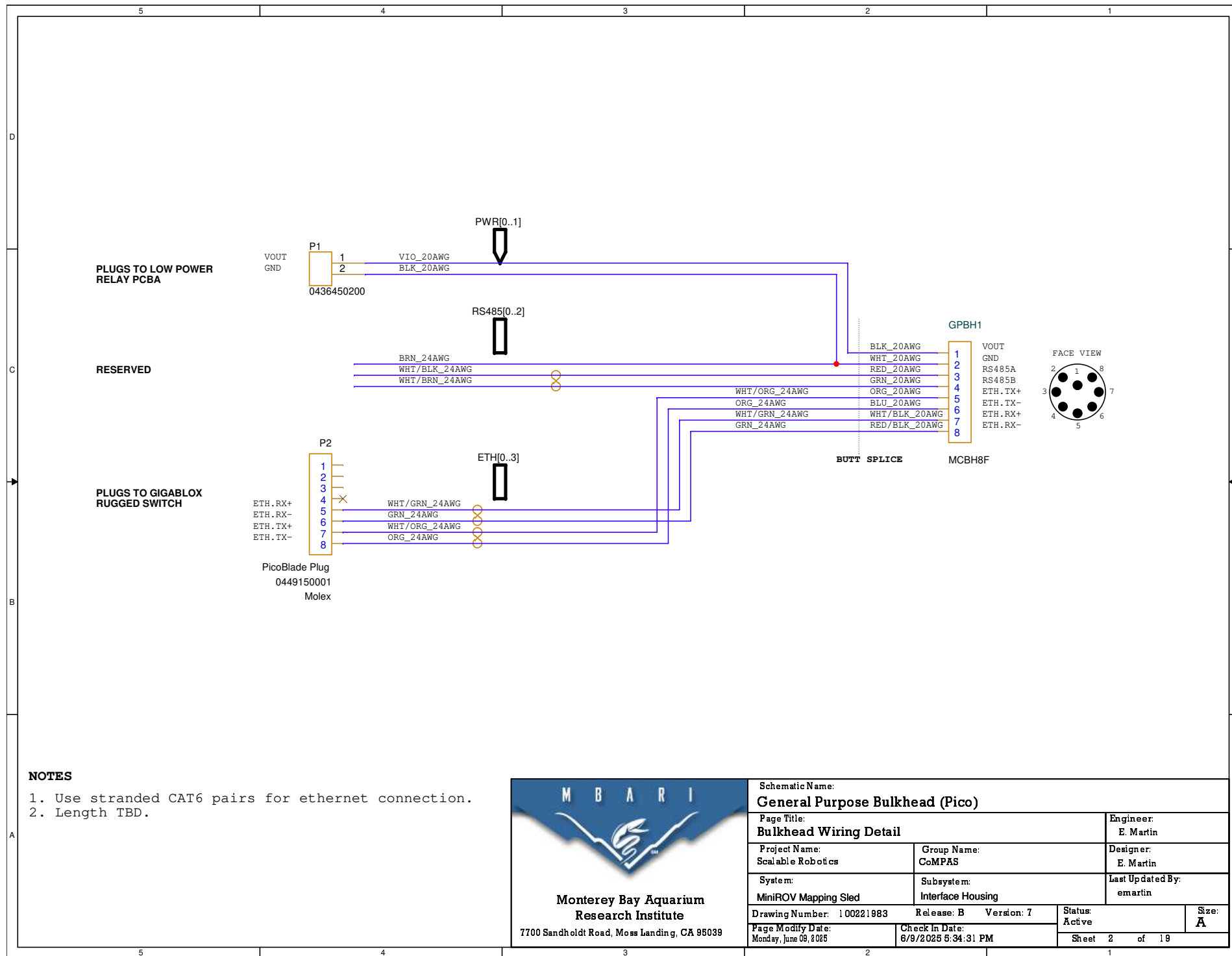
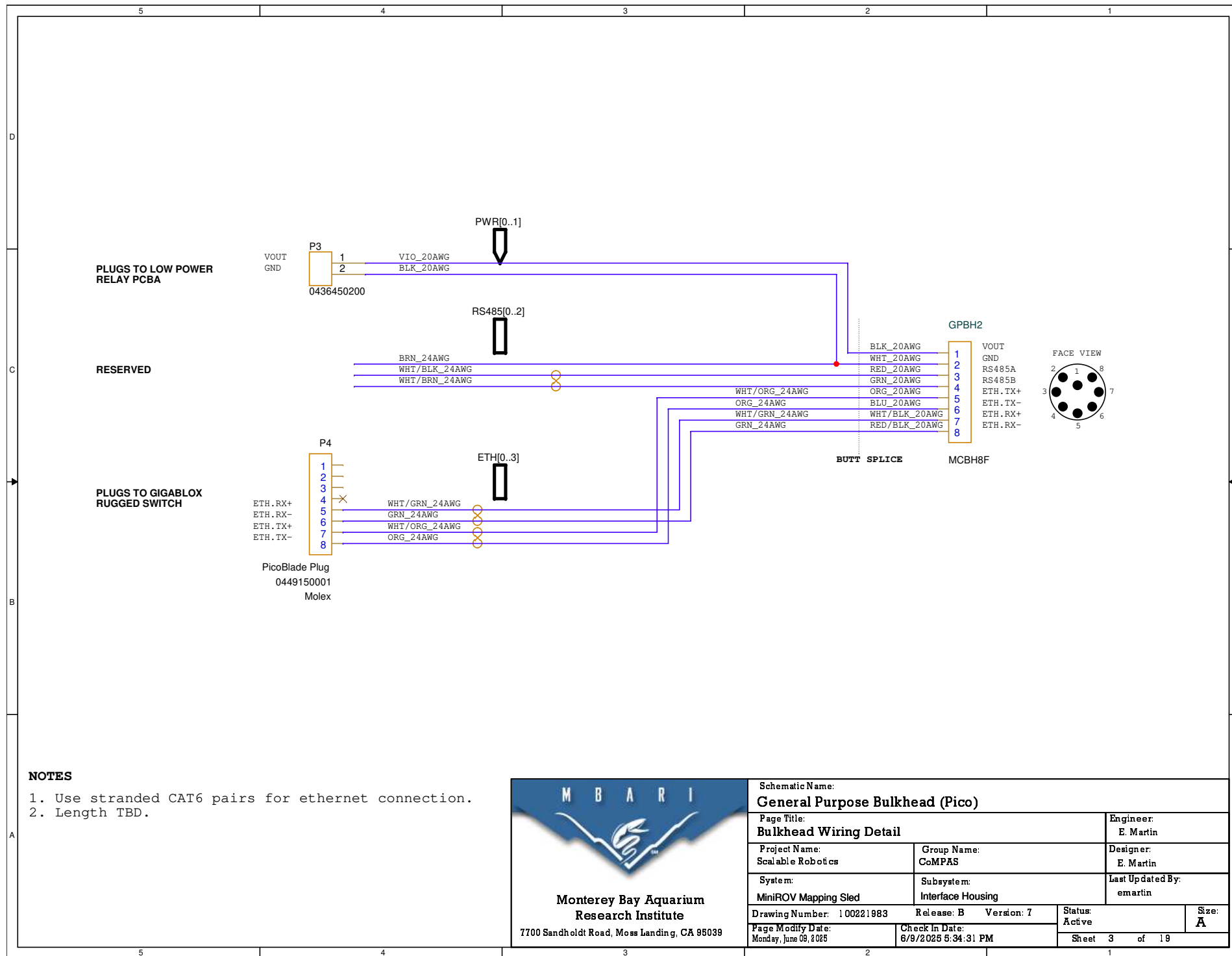
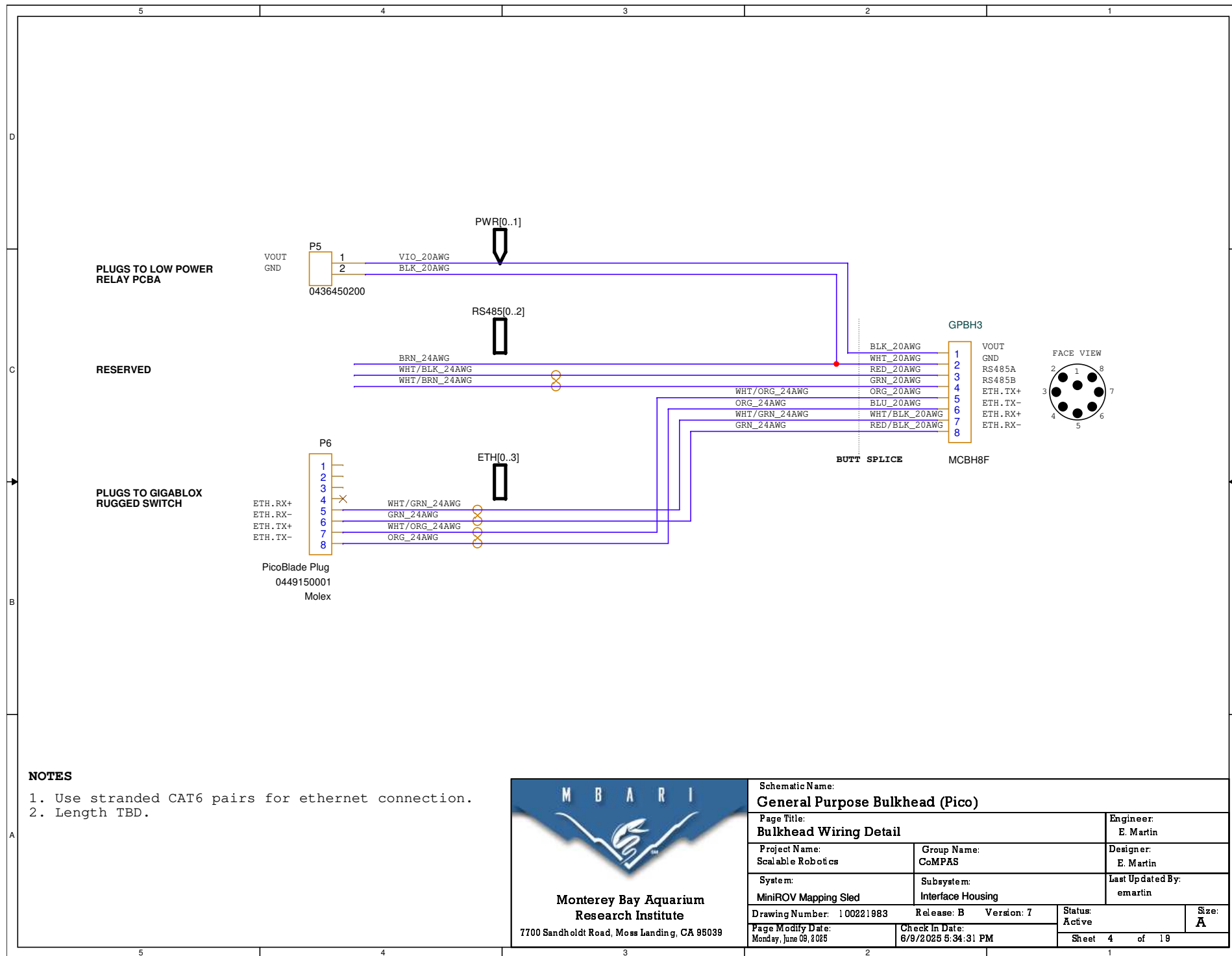






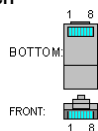




PLUGS TO LOW POWER
RELAY PCBA

RESERVED

PLUGS TO
PLANET SWITCH



P?
RJ45
Molex
0449150001

VOUT
GND

P?
1
2
50-57-9402

BRN_24AWG
WHT/BLK_24AWG
WHT/BRN_24AWG

ETH[0..3]

PWR[0..1]

RS485[0..2]

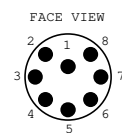
WHT/ORG_24AWG
ORG_24AWG
WHT/GRN_24AWG
GRN_24AWG

BUTT SPLICE

BLK_20AWG
WHT_20AWG
RED_20AWG
GRN_20AWG
ORG_20AWG
BLU_20AWG
WHT/BLK_20AWG
RED/BLK_20AWG

GPBH?

1
2
3
4
5
6
7
8
VOUT
GND
RS485A
RS485B
ETH.TX+
ETH.TX-
ETH.RX+
ETH.RX-



NOTES

1. Use stranded CAT6 pairs for ethernet connection.
2. Length TBD



Schematic Name:

General Purpose Bulkhead (RJ45)

Page Title:
Bulkhead Wiring Detail

Project Name:
Scalable Robotics

Group Name:
CoMPAS

Engineer:
E. Martin

System:
MiniROV Mapping Sled

Subsystem:
Interface Housing

Designer:
E. Martin

Last Updated By:
emartin

Drawing Number: 100221983

Release: B Version: 7

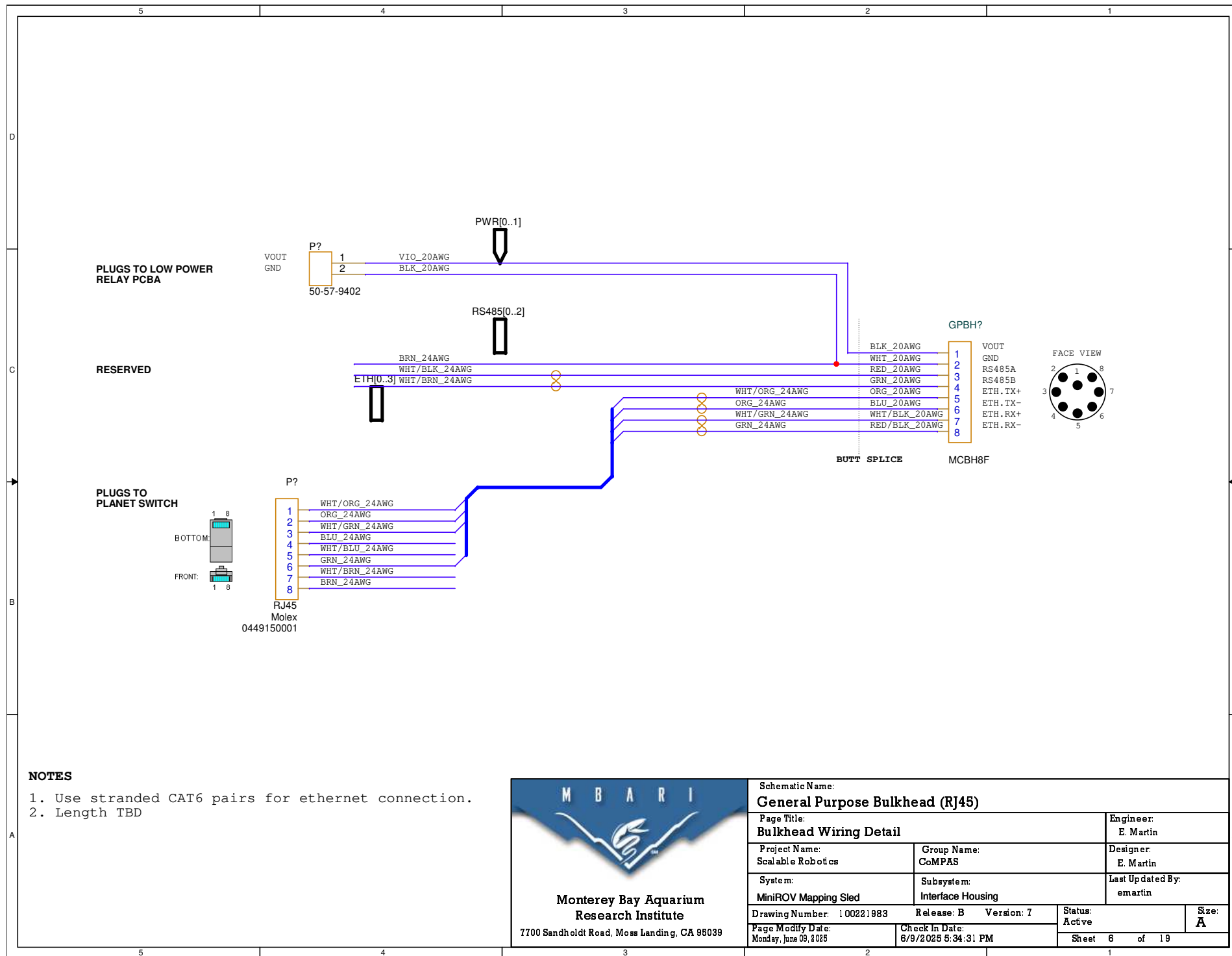
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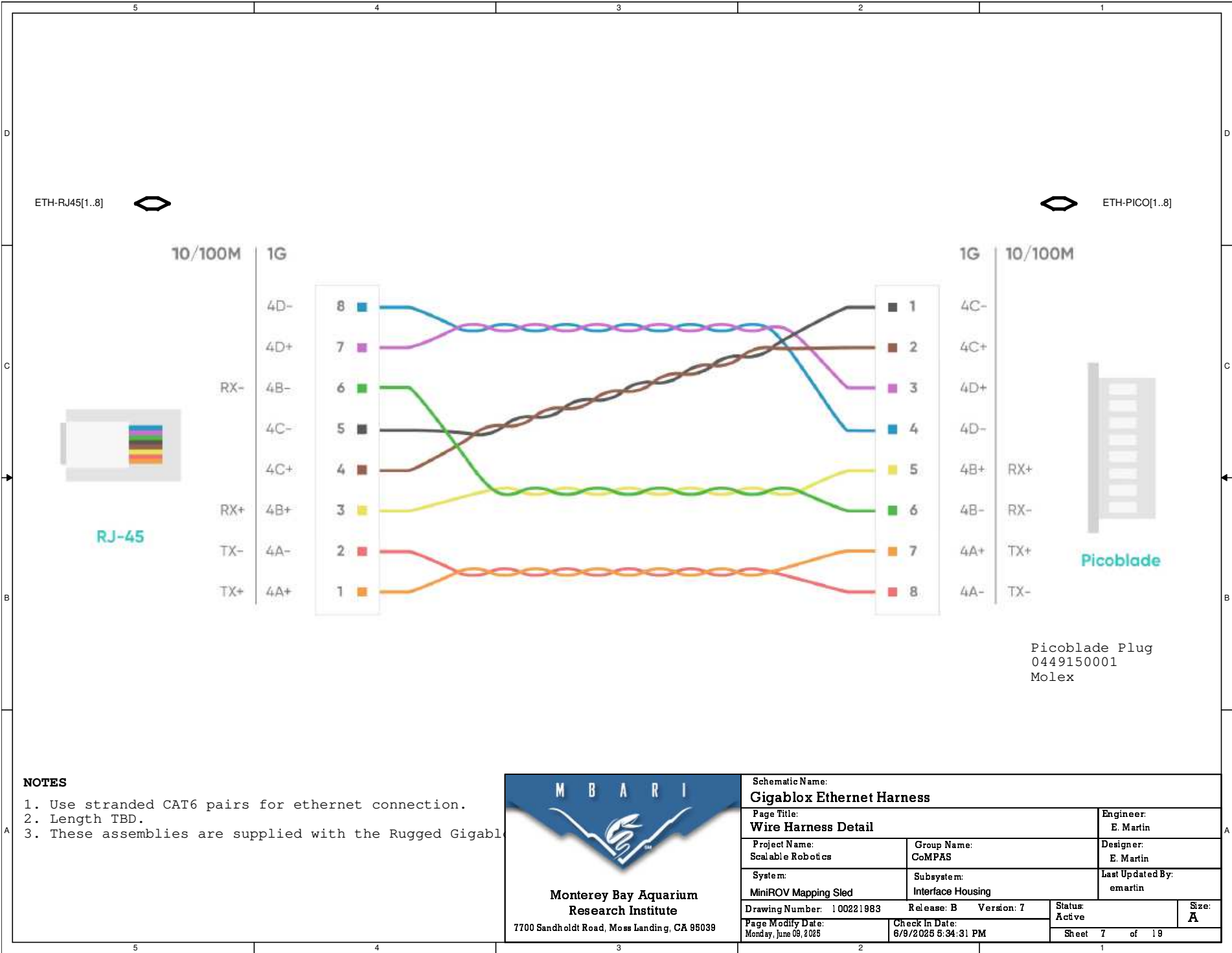
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Page Modify Date:
Monday, June 08, 2025

Check In Date:
6/9/2025 5:34:31 PM

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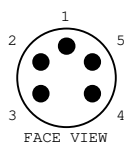
NOTES

1. Use stranded CAT6 pairs for ethernet connection.
2. Length TBD.
3. These assemblies are supplied with the Rugged Gigablox Ethernet Harness.



**Monterey Bay Aquarium
Research Institute**
7700 Sandholdt Road, Moss Landing, CA 95039

Schematic Name:				
Gigablox Ethernet Harness				
Page Title: Wire Harness Detail			Engineer: E. Martin	
Project Name: Scalable Robotics		Group Name: CoMPAS		Designer: E. Martin
System: MiniROV Mapping Sled		Subsystem: Interface Housing		Last Updated By: emartin
Drawing Number: 100221983		Release: B	Version: 7	Status: Active
Page Modify Date: Monday, June 09, 2025		Check In Date: 6/9/2025 5:34:31 PM		Size: A
		Sheet 7 of 19		



VOUT
GND
FRAME (NC)
RS485A
RS485B

LBH1



MCBH5F

1 BLK_20AWG
2 WHT_20AWG
3 RED_20AWG
4 GRN_20AWG
5 ORG_20AWG

BUTT SPLICE

VIO_20AWG
BLK_20AWG
BRN_24AWG

GRN/YEL_20AWG

WHT/BLK_24AWG
WHT/BRN_24AWG



TERMINATES TO SCREW TERM
ON MEDIUM POWER RELAY BOARD

PWR[0..1]

DIM-RS485[0..2]



**Monterey Bay Aquarium
Research Institute**
7700 Sandholdt Road, Moss Landing, CA 95039

Schematic Name:
Lamp Bulkhead

Page Title:
Bulkhead Wiring Detail

Project Name:
Scalable Robotics

Group Name:
CoMPAS

System:
MiniROV Mapping Sled

Subsystem:
Interface Housing

Engineer:
E. Martin

Designer:
E. Martin

Last Updated By:
emartin

Drawing Number: 100221983

Release: B Version: 7

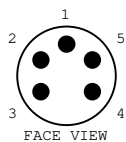
Status:
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Size:
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Page Modify Date:
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Check In Date:
6/9/2025 5:34:31 PM

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VOUT
GND
FRAME (NC)
RS485A
RS485B

LBH2



MCBH5F

1 BLK_20AWG
2 WHT_20AWG
3 RED_20AWG
4 GRN_20AWG
5 ORG_20AWG

BUTT SPLICE

VIO_20AWG
BLK_20AWG
BRN_24AWG

GRN/YEL_20AWG

WHT/BLK_24AWG
WHT/BRN_24AWG



TERMINATES TO SCREW TERM
ON MEDIUM POWER RELAY BOARD

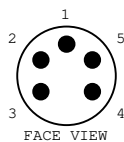
PWR[0..1]

DIM-RS485[0..2]



**Monterey Bay Aquarium
Research Institute**
7700 Sandholdt Road, Moss Landing, CA 95039

Schematic Name: Lamp Bulkhead				
Page Title: Bulkhead Wiring Detail			Engineer: E. Martin	
Project Name: Scalable Robotics	Group Name: CoMPAS		Designer: E. Martin	
System: MiniROV Mapping Sled	Subsystem: Interface Housing		Last Updated By: emartin	
Drawing Number: 100221983	Release: B	Version: 7	Status: Active	Size: A
Page Modify Date: Monday, June 09, 2025	Check In Date: 6/9/2025 5:34:31 PM		Sheet 9 of 19	



VOUT
GND
FRAME (NC)
RS485A
RS485B

LBH3



MCBH5F

1 BLK_20AWG
2 WHT_20AWG
3 RED_20AWG
4 GRN_20AWG
5 ORG_20AWG

BUTT SPLICE

VIO_20AWG
BLK_20AWG
BRN_24AWG

GRN/YEL_20AWG

WHT/BLK_24AWG
WHT/BRN_24AWG



TERMINATES TO SCREW TERM
ON MEDIUM POWER RELAY BOARD

PWR[0..1]

DIM-RS485[0..2]



**Monterey Bay Aquarium
Research Institute**
7700 Sandholdt Road, Moss Landing, CA 95039

Schematic Name:
Lamp Bulkhead

Page Title:
Bulkhead Wiring Detail

Project Name:
Scalable Robotics

Group Name:
CoMPAS

System:
MiniROV Mapping Sled

Subsystem:
Interface Housing

Engineer:
E. Martin

Designer:
E. Martin

Last Updated By:
emartin

Drawing Number: 100221983

Release: B Version: 7

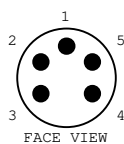
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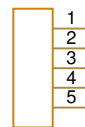
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6/9/2025 5:34:31 PM

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VOUT
GND
FRAME (NC)
RS485A
RS485B

LBH4



MCBH5F

1 BLK_20AWG
2 WHT_20AWG
3 RED_20AWG
4 GRN_20AWG
5 ORG_20AWG

BUTT SPLICE

VIO_20AWG
BLK_20AWG
BRN_24AWG

GRN/YEL_20AWG

WHT/BLK_24AWG
WHT/BRN_24AWG



TERMINATES TO SCREW TERM
ON MEDIUM POWER RELAY BOARD

PWR[0..1]

DIM-RS485[0..2]



**Monterey Bay Aquarium
Research Institute**
7700 Sandholdt Road, Moss Landing, CA 95039

Schematic Name:
Lamp Bulkhead

Page Title:
Bulkhead Wiring Detail

Project Name:
Scalable Robotics

System:
MiniROV Mapping Sled

Drawing Number: 100221983

Page Modify Date:
Monday, June 09, 2025

Group Name:
CoMPAS

Subsystem:
Interface Housing

Release: B Version: 7

Check In Date:
6/9/2025 5:34:31 PM

Engineer:
E. Martin

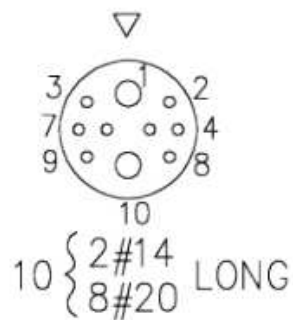
Designer:
E. Martin

Last Updated By:
emartin

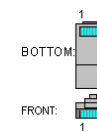
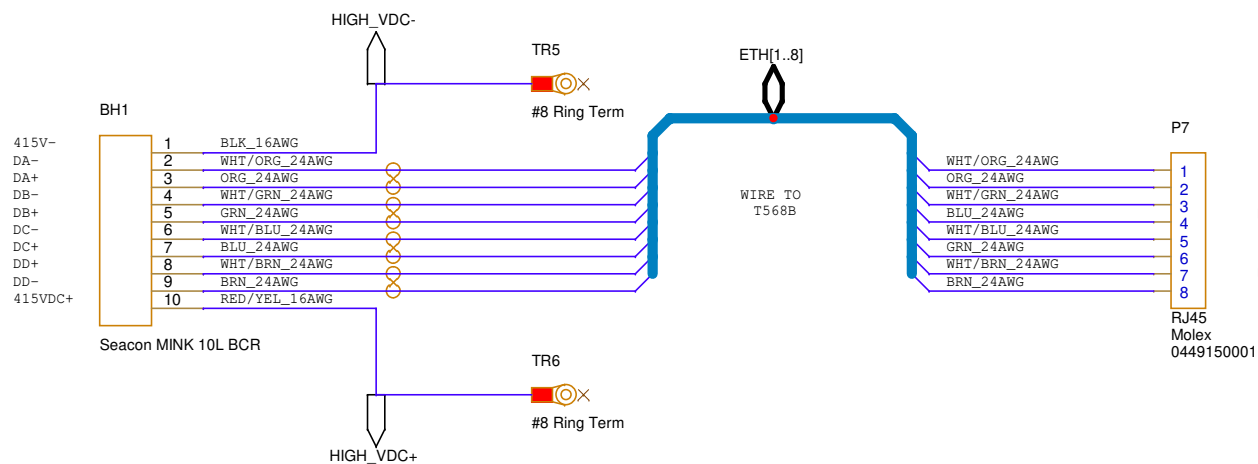
Status:
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Size:
A



MALE FACE VIEW



NOTES

1. Wire RJ45 to T568B standard.
2. Length TBD.



**Monterey Bay Aquarium
Research Institute**
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Schematic Name:

MiniROV Sci Port

Page Title:

Bulkhead Wiring Detail

Project Name:
Scalable Robotics

Group Name:
CoMPAS

Engineer:
E. Martin

Designer:
E. Martin

System:
MiniROV Mapping Sled

Subsystem:
Interface Housing

Last Updated By:
emartin

Drawing Number: 100221983

Release: B

Version: 7

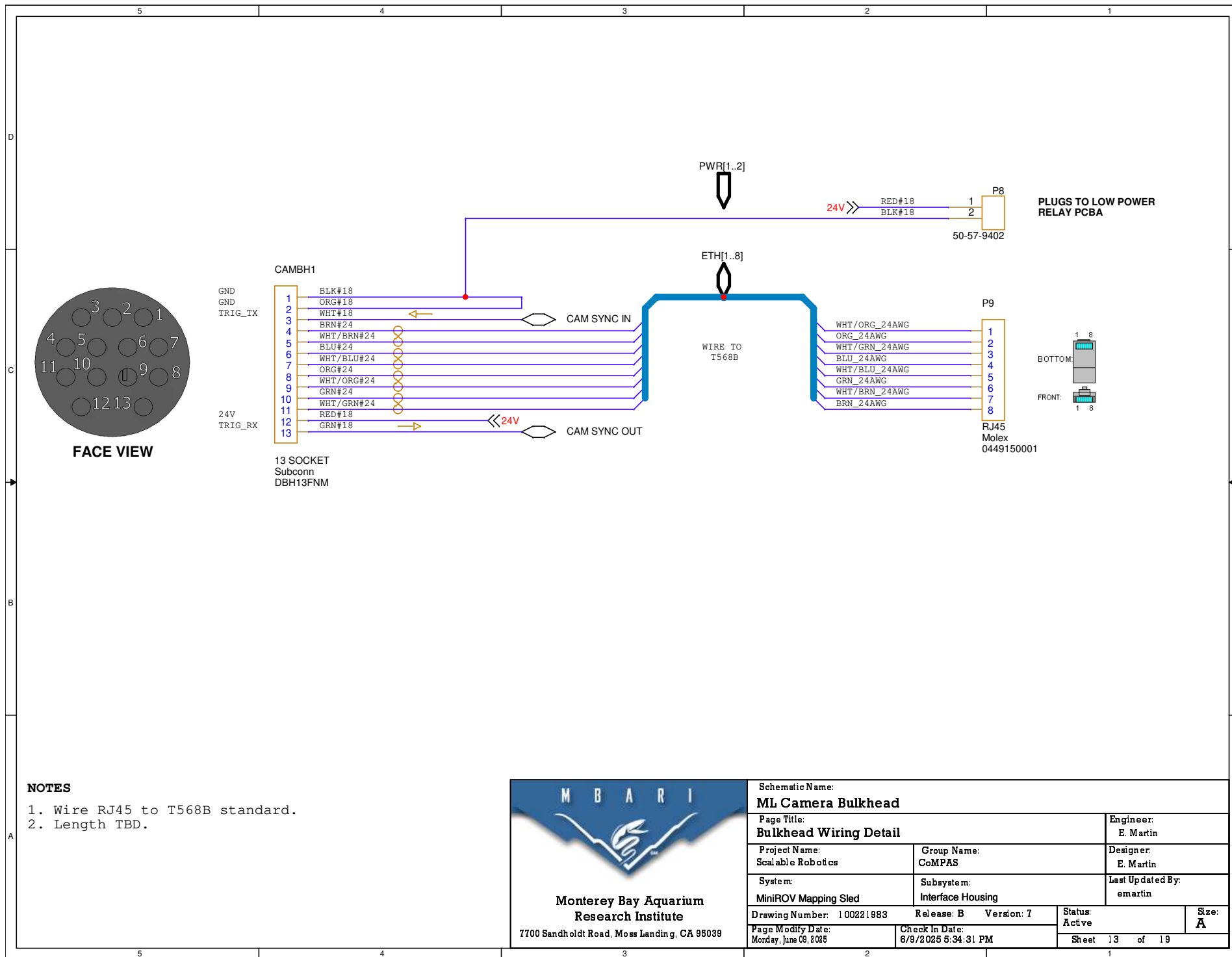
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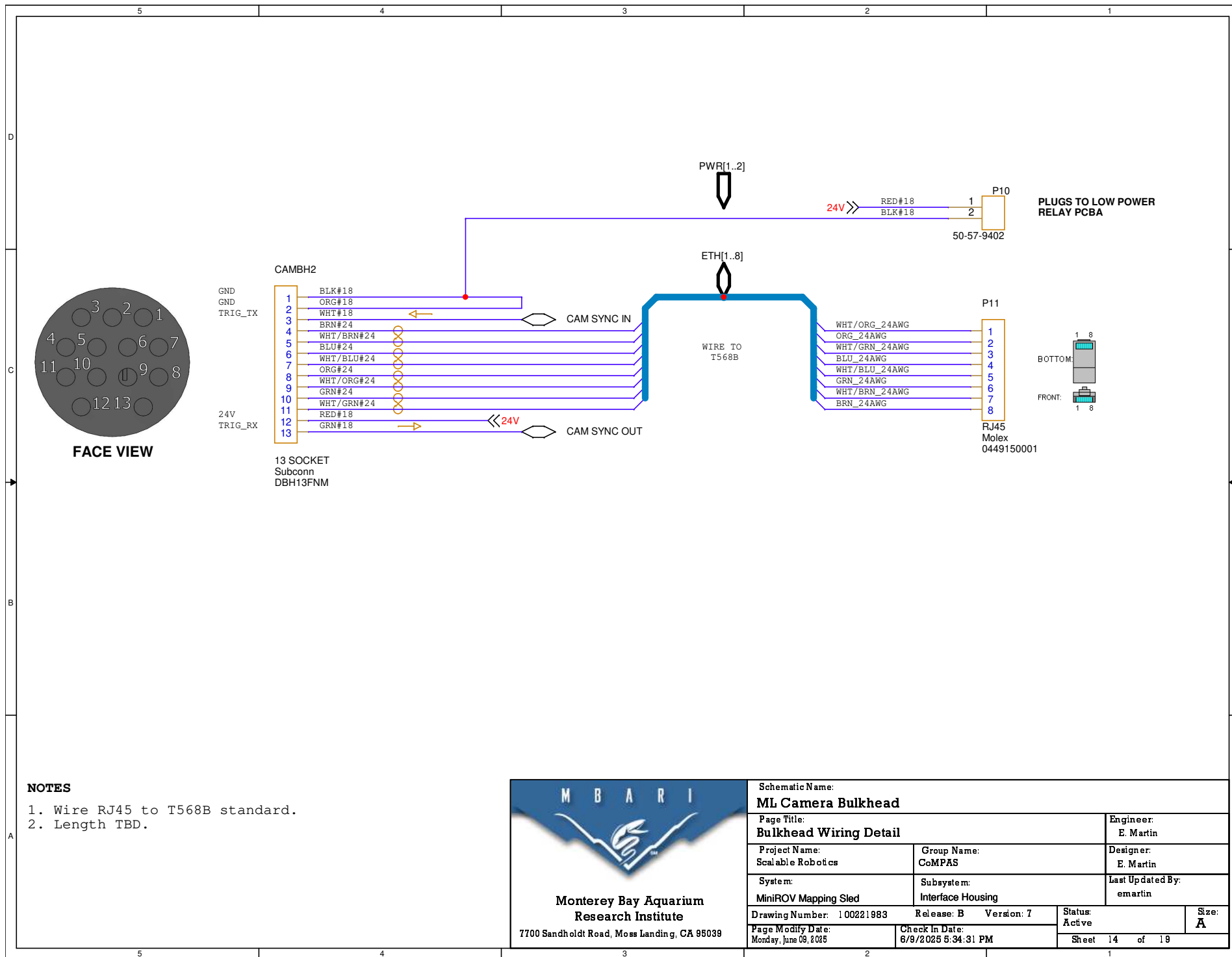
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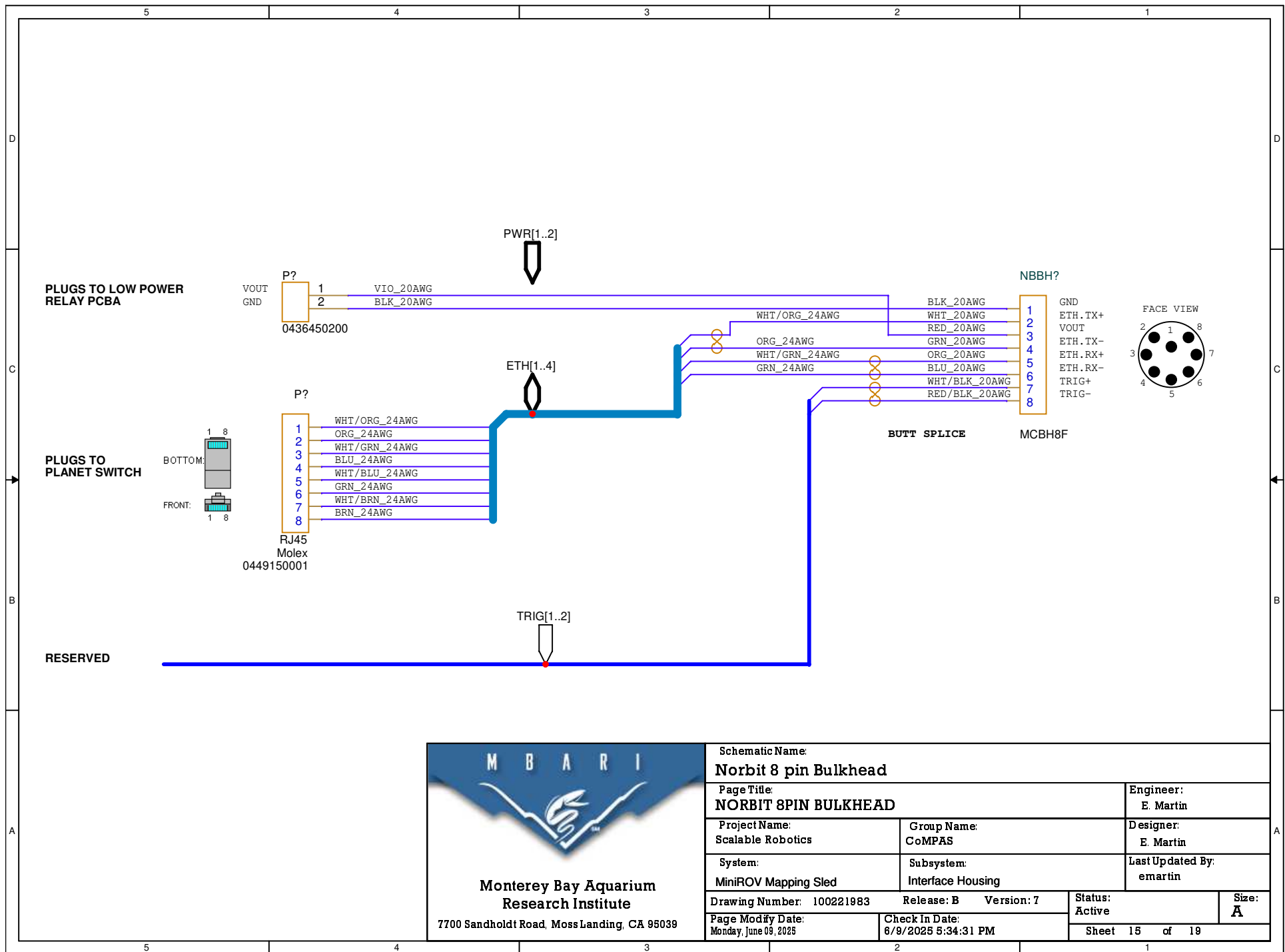
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Monday, June 08, 2025

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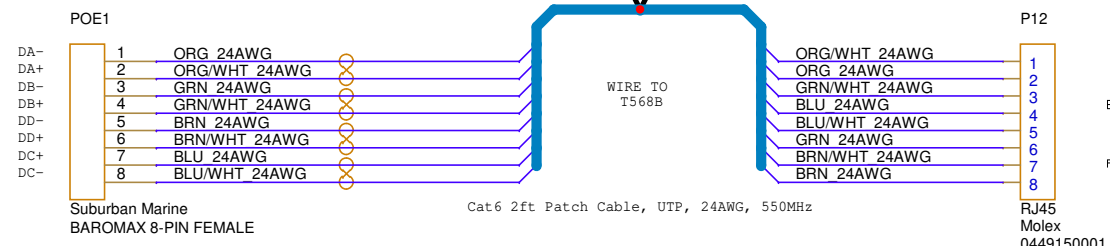
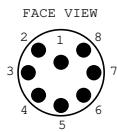
Sheet 12 of 19





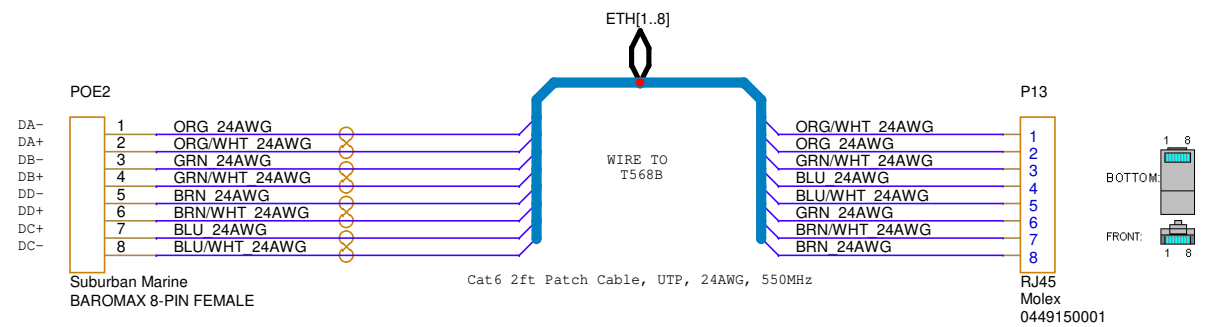
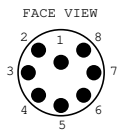


Schematic Name: Norbit 8 pin Bulkhead			
Page Title: NORBIT 8PIN BULKHEAD			Engineer: E. Martin
Project Name: Scalable Robotics	Group Name: CoMPAS		Designer: E. Martin
System: MINIROV Mapping Sled	Subsystem: Interface Housing		Last Updated By: emartin
Drawing Number: 100221983	Release: B	Version: 7	Status: Active
Page Modify Date: Monday, June 09, 2025	Check In Date: 6/9/2025 5:34:31 PM		Size: A
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Monterey Bay Aquarium
Research Institute
7700 Sandholdt Road, Moss Landing, CA 95039

Schematic Name: POE Seacon MCBH8F-ETH			
Page Title: Bulkhead Wiring Detail		Engineer: E. Martin	
Project Name: Scalable Robotics	Group Name: CoMPAS	Designer: E. Martin	
System: MiniROV Mapping Sled	Subsystem: Interface Housing	Last Updated By: emartin	
Drawing Number: 100221983	Release: B	Version: 7	Status: Active
Page Modify Date: Monday, June 08, 2025	Check In Date: 6/9/2025 5:34:31 PM	Sheet 16 of 19	
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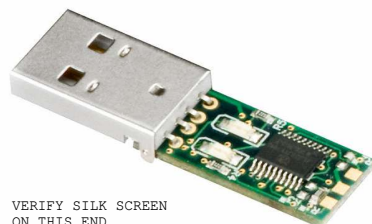


**Monterey Bay Aquarium
Research Institute**
7700 Sandholdt Road, Moss Landing, CA 95039

Schematic Name: POE Seacon MCBH8F-ETH				
Page Title: Bulkhead Wiring Detail			Engineer: E. Martin	
Project Name: Scalable Robotics		Group Name: CoMPAS		Designer: E. Martin
System: MiniROV Mapping Sled		Subsystem: Interface Housing		Last Updated By: emartin
Drawing Number: 100221983		Release: B	Version: 7	Status: Active
Page Modify Date: Monday, June 08, 2025		Check In Date: 6/9/2025 5:34:31 PM		Size: A
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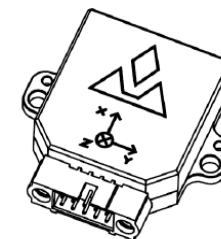
USB[1..4]

FTDI USB-RS232-PCBA



VERIFY SILK SCREEN
ON THIS END
DIFFERS BY REV

VectorNAV VN100



BELDEN 9534
MULTI CONDUCTOR
#24/4C CABLE



USB-A

1 USB-1
2 USB-2
3 USB-3
4 USB-4

50-00466

VCC
DATA-
DATA+
GND

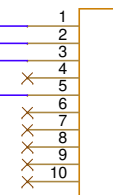
POWER
GND
RXD
TXD
CTS
RTS

USB-RS232-PCBA

SMD-1
SMD-2
SMD-3
SMD-4
SMD-5
SMD-6

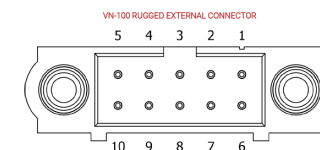
RED
BLK
WHT
GRN

DRAIN



M80-4861005

PIN	SIGNAL
1	VCC 4.5-5.5
2	TX1_RS232
3	RX1_RS232
4	SYNC_OUT
5	GND
6	TARE/RESTORE
7	SYNC_IN
8	TX2_TTL
9	RX2_TTL
10	RESERVED



DEVICE CONNECTOR FACE VIEW

NOTES

1. Assembly should be 15" length over all.
2. Surround exposed PCB with clear heat shrink.
3. On USB-RS232-PCBA, fit R3 onto PCB to enable 5V output. Limited to 75mA



Schematic Name: USB to RS232 VN100 Harness			
Page Title: Wire & PCB Harness Detail			Engineer: E. Martin
Project Name: Scalable Robotics	Group Name: CoMPAS	Designer: E. Martin	
System: MiniROV Mapping Sled	Subsystem: Interface Housing	Last Updated By: emartin	
Drawing Number: 100221983	Release: B	Version: 7	Status: Active
Page Modify Date: Monday, June 08, 2025	Check In Date: 6/9/2025 5:34:31 PM	Sheet 18 of 19	
			Size: A

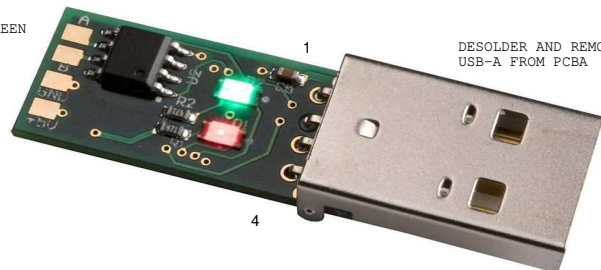
RS485[0..2]



USB[1..4]



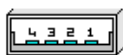
VERIFY SILK SCREEN
ON THIS END
DIFFERS BY REV



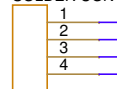
DESOLDER AND REMOVE
USB-A FROM PCBA

USB CABLE
2 COND 24 AWG
TWISTED PAIR 28AWG
LENGTH 2 IN

USB-RS485-PCBA
DIGIKEY: 768-1043-ND



USB-A
SOLDER CON



50-00466

1 RED 24AWG
2 WHT 28AWG
3 GRN 28AWG
4 BLK 24AWG

USB-1

USB-2

USB-3

USB-4

U3

VCC

DATA-

DATA+

GND

+5V

GND

A

B

SMD-1

SMD-2

SMD-3

SMD-4

BLK 24AWG

WHT/BLK_24AWG

WHT/BRN_24AWG

CONNECTS TO
WAGO 221 JUNCTION
FOR ALL LAMPS



Schematic Name: USB to RS485 Dongle				
Page Title: Wire & PCB Harness Detail			Engineer: E. Martin	
Project Name: Scalable Robotics		Group Name: CoMPAS		Designer: E. Martin
System: MiniROV Mapping Sled		Subsystem: Interface Housing		Last Updated By: emartin
Drawing Number: 100221983		Release: B Version: 7		Status: Active
Page Modify Date: Monday, June 08, 2025		Check In Date: 6/9/2025 5:34:31 PM		Size: A
		Sheet 19 of 19		