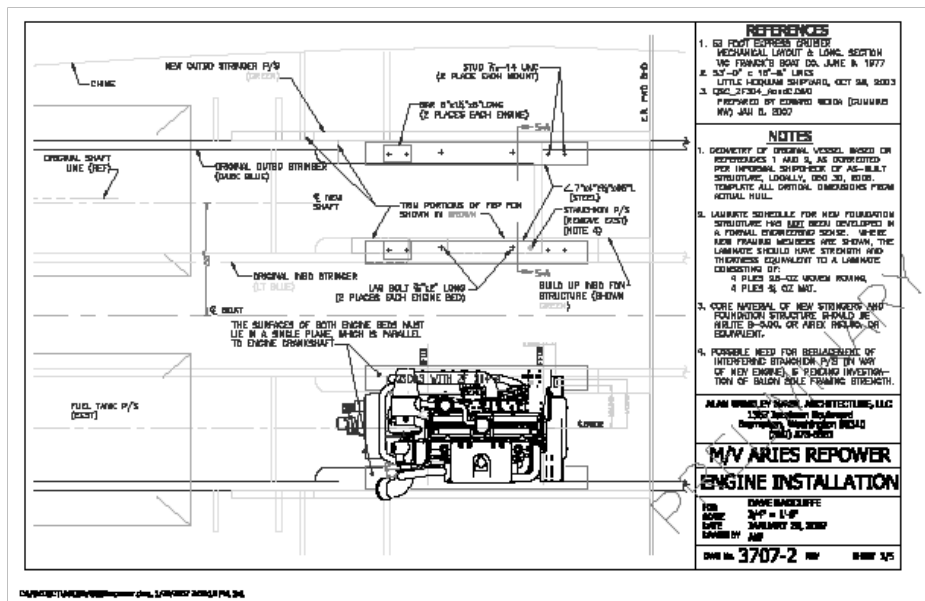
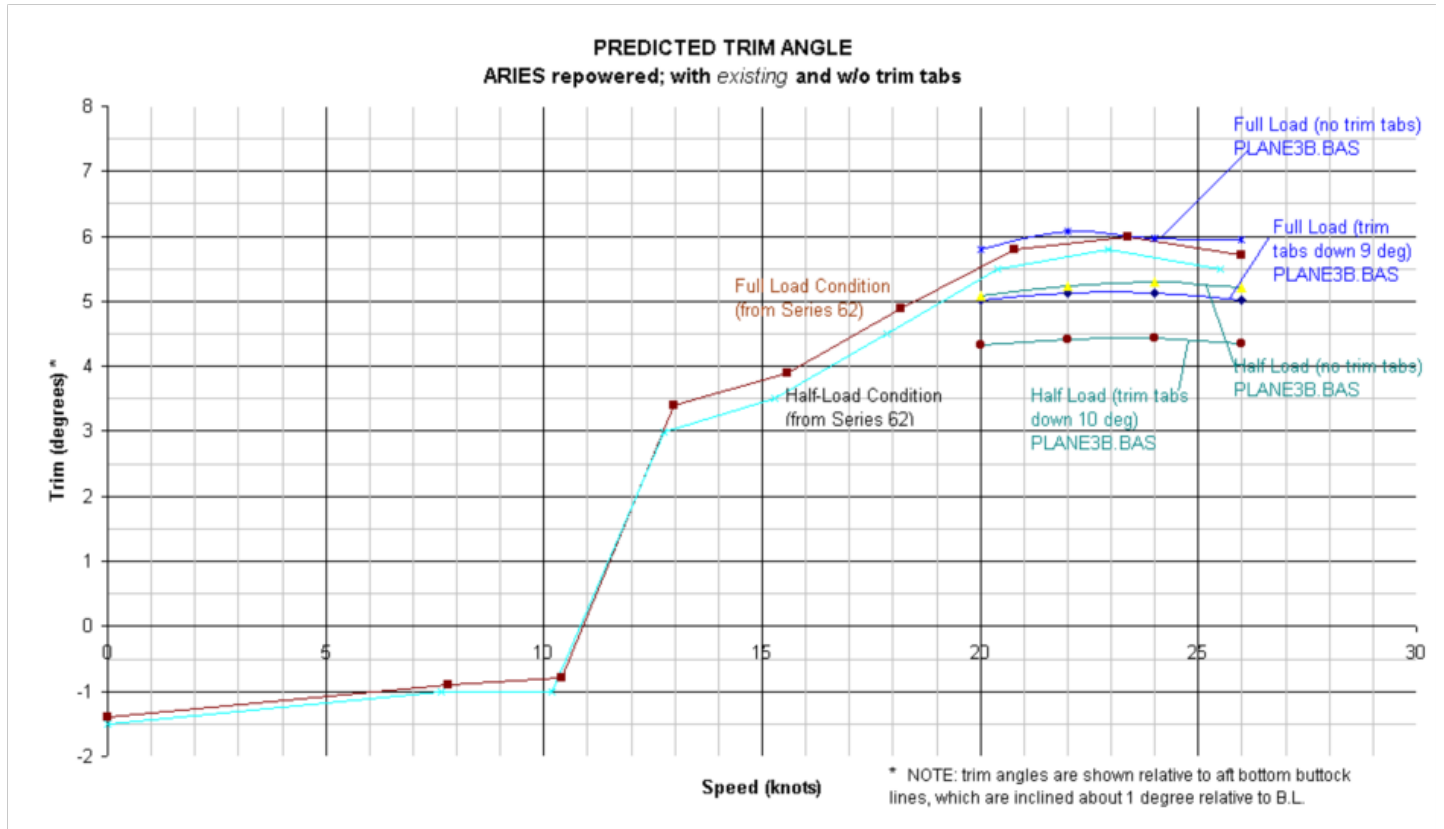
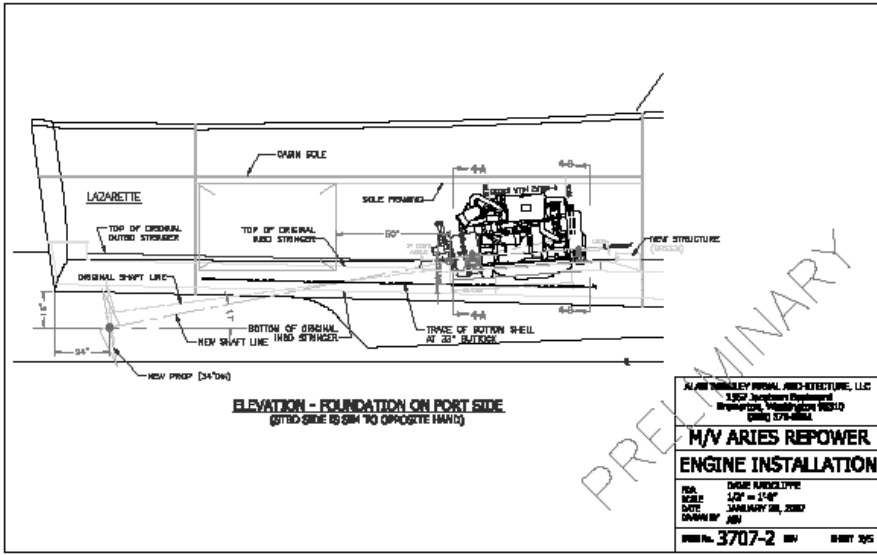


Motoryacht ARIES Repower

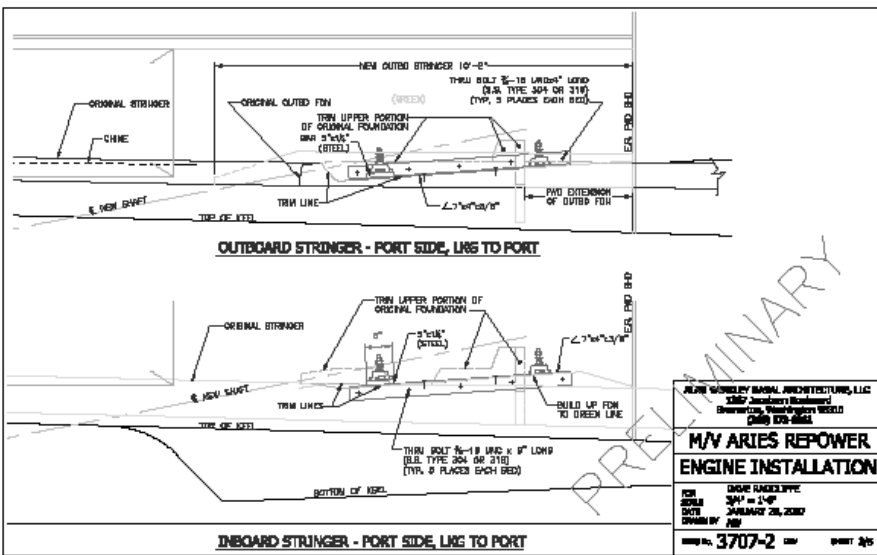
The fiberglass motoryacht ARIES was constructed in 1978 by Little Hoquiam Boat Shop (hull) and Vic Franck's Boat Company (outfit and interior). The present owner was willing to invest an amount equal to full value of the boat in modifications to gain better performance - through repowering, a stern extension, and trim tab replacement. Prior to selecting the reduction gears and designing the new engine mounts, Alan carried out a hydrodynamic analysis of the planing boat. A small part of the analysis is shown below. The effect of trim tabs and load condition is shown over the speed range of 20 to 26 knots. The project resulted in a modest reduction in the planing trim angle and increase in the top speed. The new engines are Cummins Model QSC8.3, with ZF Model 304-A reduction gears.





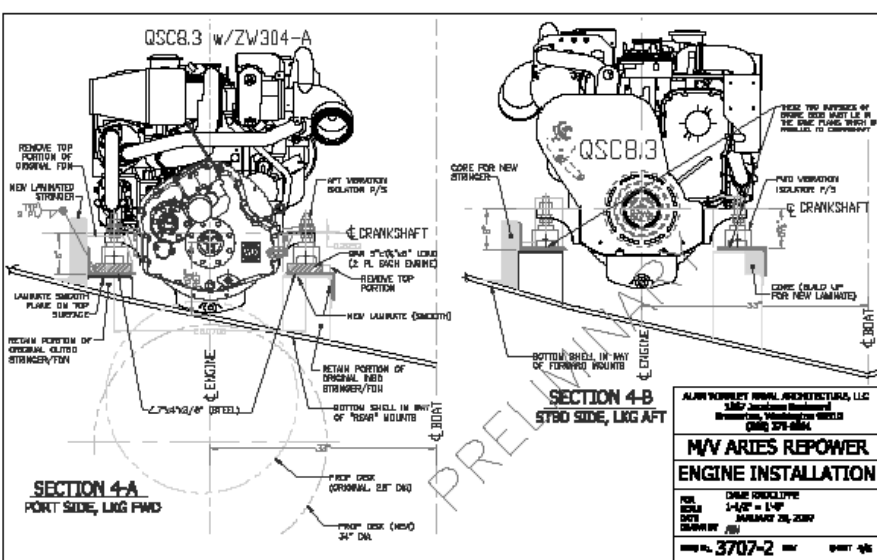
ALAN WARDLEY MARINE ARCHITECTURE, LLC 1307 Junction Boulevard Baltimore, Maryland 21210 (410) 578-2844	
M/V ARIES REPOWER	
ENGINE INSTALLATION	
FOR:	DAVE HANDELTYPE
SCALE:	1/2" = 1'-0"
DATE:	JANUARY 26, 2007
DRAWN BY:	AW
NO.:	3707-2
REV:	0001 2/05

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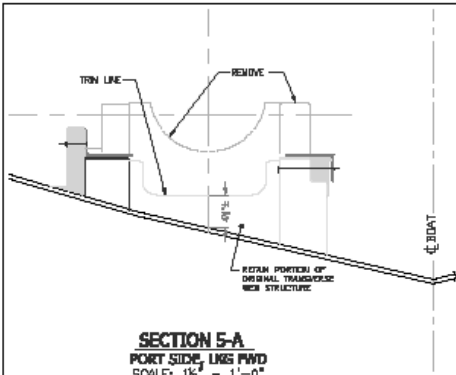
ALAN WARDLEY MARINE ARCHITECTURE, LLC 1307 Junction Boulevard Baltimore, Maryland 21210 (410) 578-2844	
M/V ARIES REPOWER	
ENGINE INSTALLATION	
FOR:	DAVE HANDELTYPE
SCALE:	3/4" = 1'-0"
DATE:	JANUARY 26, 2007
DRAWN BY:	AW
NO.:	3707-2
REV:	0001 2/05

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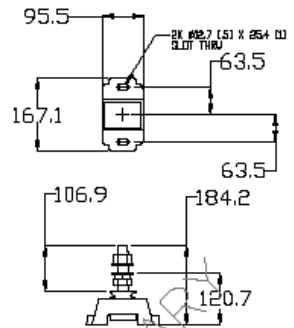


ALAN WARDLEY MARINE ARCHITECTURE, LLC 1307 Junction Boulevard Baltimore, Maryland 21210 (410) 578-2844	
M/V ARIES REPOWER	
ENGINE INSTALLATION	
FOR:	DAVE HANDELTYPE
SCALE:	1/4" = 1'-0"
DATE:	JANUARY 26, 2007
DRAWN BY:	AW
NO.:	3707-2
REV:	0001 2/05

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SECTION 5-A
 PORT SIDE, LHS PWD
 SCALE: 1/2" = 1'-0"



VIBRATION ISOLATOR
 1:5 SCALE (MILLIMETER DIMS)

ALAN VORLEY RWAL ARCHITECTURE, LLC	
1827 Jackson Boulevard	
Baltimore, Washington DC 21204	
(410) 571-0864	
M/V ARIES REPOWER	
ENGINE INSTALLATION	
FOR:	DMR FREIGHTER
BY:	AL VORLEY
DATE:	JANUARY 28, 2009
SCALE:	(SEE)
NO.:	3707-2
REV:	0001 2/0

PRELIMINARY