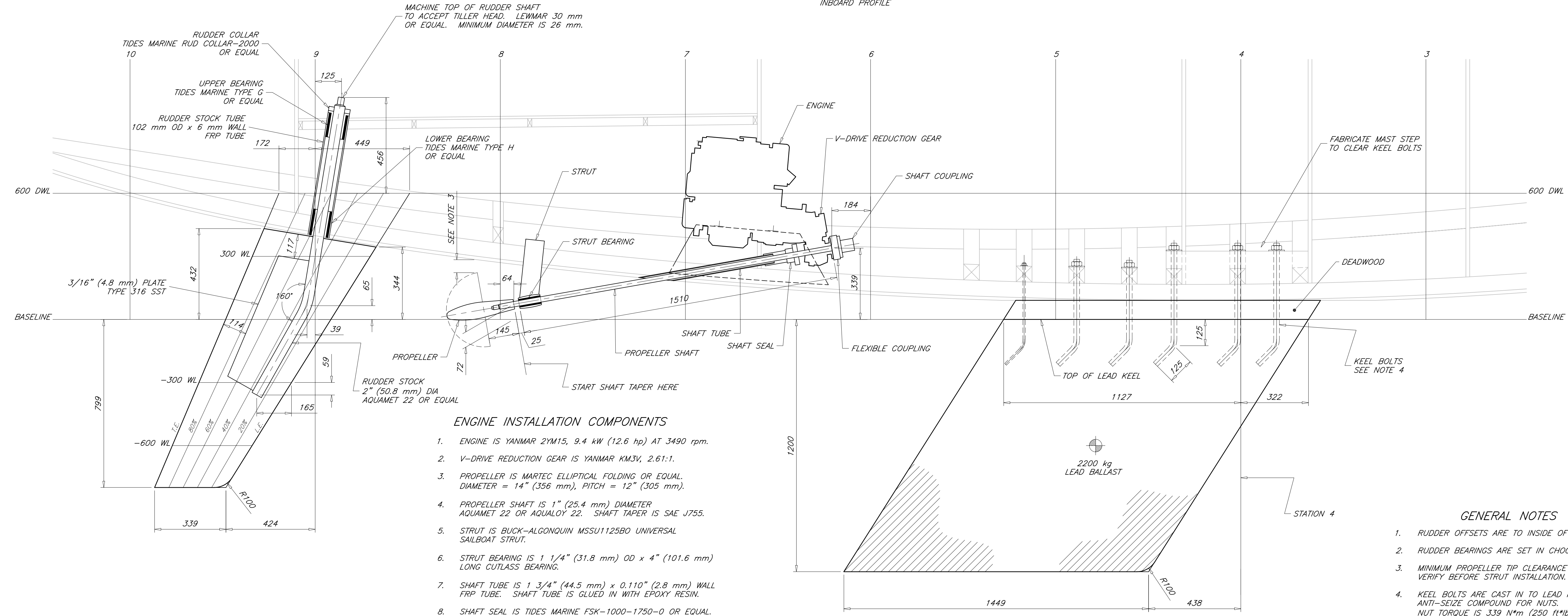


REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED
ALL	-	ORIGINAL ISSUE	22 AUG 09	P. KOTZEBUE

ELEVATION D-4
INBOARD PROFILE

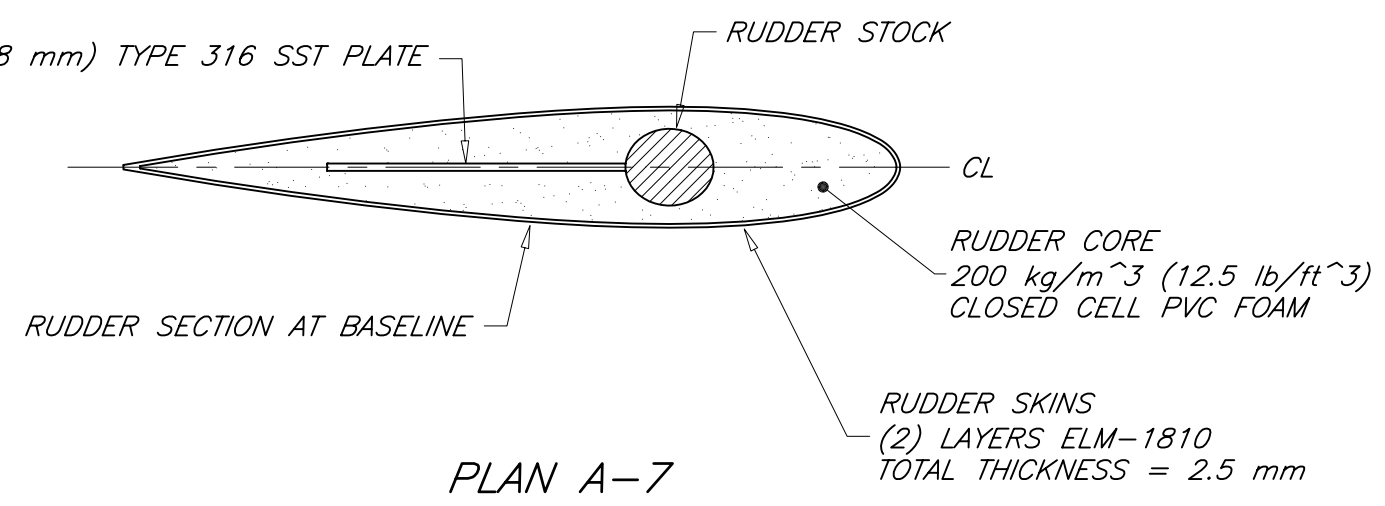
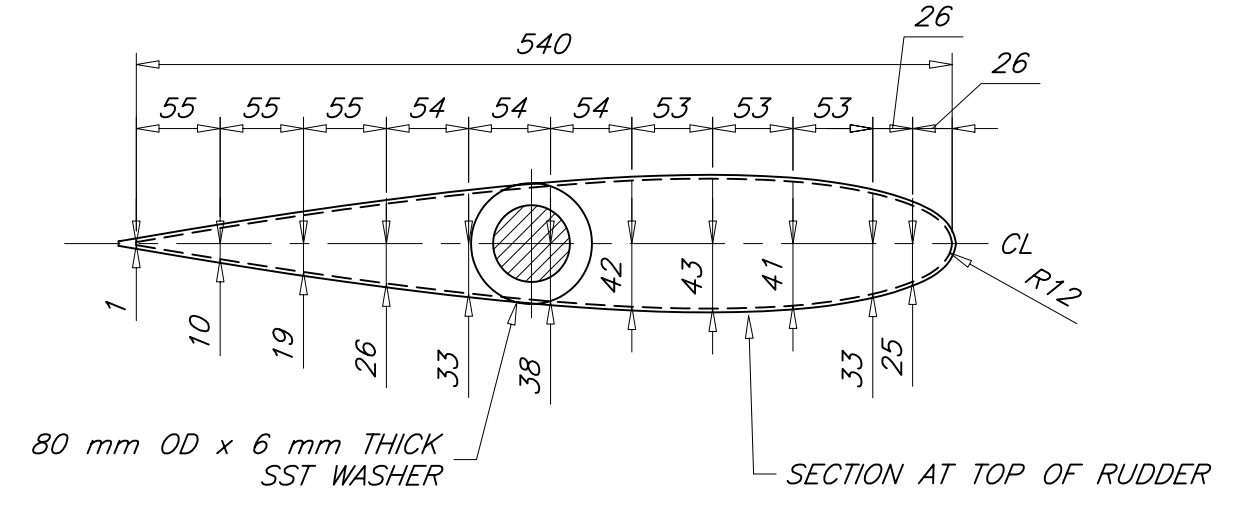


ENGINE INSTALLATION COMPONENTS

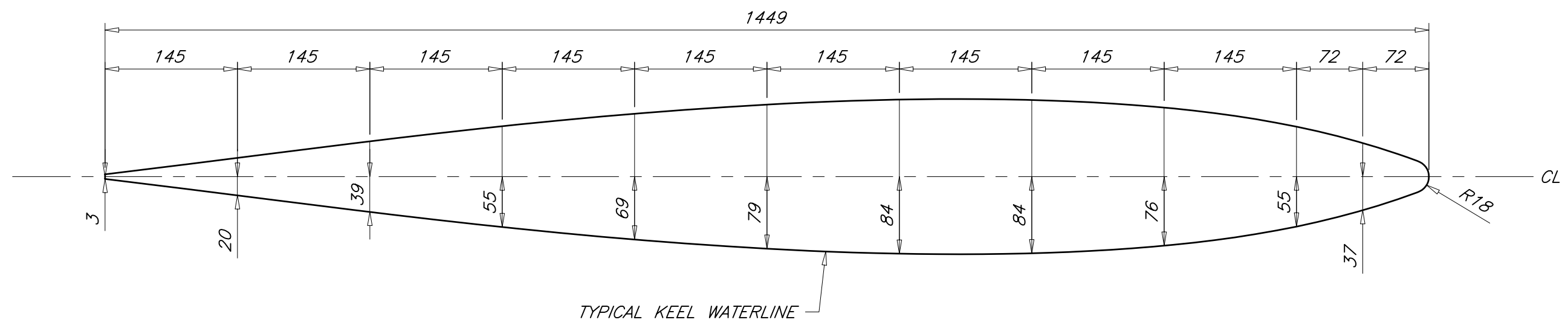
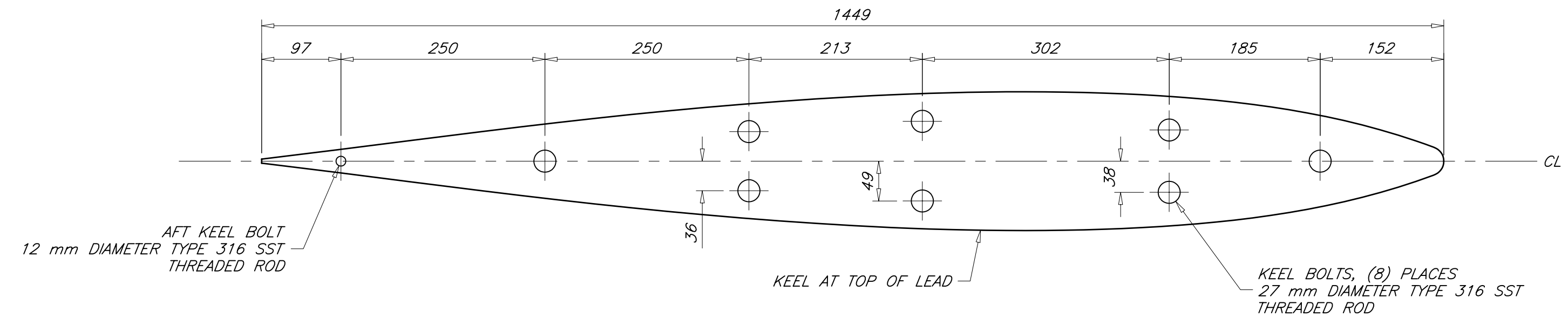
- ENGINE IS YANMAR 2YM15, 9.4 kW (12.6 hp) AT 3490 rpm.
- V-DRIVE REDUCTION GEAR IS YANMAR KM3V, 2.61:1.
- PROPELLER IS MARTEC ELLIPTICAL FOLDING OR EQUAL. DIAMETER = 14" (356 mm), PITCH = 12" (305 mm).
- PROPELLER SHAFT IS 1" (25.4 mm) DIAMETER AQUAMET 22 OR AQUALOY 22. SHAFT TAPER IS SAE J755.
- STRUT IS BUCK-ALGONQUIN MSSU1125B0 UNIVERSAL SAILBOAT STRUT.
- STRUT BEARING IS 1 1/4" (31.8 mm) OD x 4" (101.6 mm) LONG CUTLASS BEARING.
- SHAFT TUBE IS 1 3/4" (44.5 mm) x 0.110" (2.8 mm) WALL FRP TUBE. SHAFT TUBE IS GLUED IN WITH EPOXY RESIN.
- SHAFT SEAL IS TIDES MARINE FSK-1000-1750-0 OR EQUAL.
- FLEXIBLE COUPLING IS R&D MARINE MODEL 910-002 OR EQUAL.

GENERAL NOTES

- RUDDER OFFSETS ARE TO INSIDE OF RUDDER SKIN.
- RUDDER BEARINGS ARE SET IN CHOCKFAST.
- MINIMUM PROPELLER TIP CLEARANCE IS 53 mm. VERIFY BEFORE STRUT INSTALLATION.
- KEEL BOLTS ARE CAST IN TO LEAD KEEL. USE ANTI-SEIZE COMPOUND FOR NUTS. KEEL BOLT NUT TORQUE IS 339 N*m (250 ft*lb) EXCEPT FOR AFT BOLT WHICH IS 28 N*m (21 ft*lb).
- LEAD CASTING IS CONTAIN 2% TO 4% ANTIMONY. DENSITY IS 11,080 kg/m³ (692 lb/ft³).
- BED KEEL TO DEADWOOD WITH 3M 4200 SEALANT. DO NOT USE 3M 5200.
- ELM-1810 IS IS VECTOR PLY E-LM 1810 E GLASS UNIDIRECTIONAL WITH MAT FABRIC.
MIN TENSILE STRENGTH OF CURED LAMINATE = 303 MPa (44,000 psi)
MIN FLEXURAL STRENGTH OF CURED LAMINATE = 441 MPa (64,000 psi)
THICKNESS = 1.24 mm (0.049") PER PLY



PLAN A-7
RUDDER WATERLINES
SCALE = 1 : 5



RUDDER OFFSETS

	C.L.	L.E.R.	5%	10%	20%	30%	40%	50%	60%	70%	80%	90%	T.E.	
600 DWL	621	15	28	36	45	47	45	41	35	28	20	11	1	600 DWL
300 WL	561	14	25	33	40	42	41	37	32	26	18	10	1	300 WL
BASELINE	500	12	22	29	36	38	36	33	29	23	16	9	1	BASELINE
-300 WL	440	11	20	26	32	33	32	29	25	20	14	8	1	-300 WL
-600 WL	379	9	17	22	27	28	27	25	22	17	12	7	1	-600 WL
TIP CHORD	339	8	15	20	24	25	25	22	19	16	11	6	1	TIP CHORD

PAUL R. KOTZEBUE, PE
MECHANICAL ENGINEER
Encinitas, California USA

DRAFTER: PK	DATE: 22 AUG 09	SIZE: ARCH D	DWG NO.	REV: -
CHECKER: PK	DATE: 22 AUG 09	SCALE: 1 : 10	DWG NO.	SHEET: 1 OF 1

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