

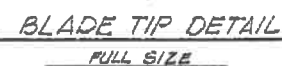
1.02 = 73

 $.95.5 = 74.1$ 
$$.9R = 70.2$$

$.52 = 62.4$

$$.72 = 54.6$$
 $42 = 46.5$ 
$$.5R = 39.0$$
$$.4R = 31.2$$

32-23,4

$$2R = 15.6$$


**1/4 SIZE**

DIAMETER	152 INCHES
PITCH @ 72	123.95 INCHES
ROTATION	RIGHT HAND
NUMBER OF BLADE	4
SKEW	NONE
RAKE	5 INCHES
EXPANDED AREA RATIO	.603
MEAN WIDTH RATIO	.290
BLADE THICKNESS FRACTION	.0565
$C_s$	.737
$C_n$	.0784
CALCULATED WEIGHT	14,100 lb.
CALCULATED $Wp^2$ (IN AIR)	15,566,000 lb.-in <sup>2</sup>
DESIGN RPM	8500
DESIGN RPH	180
SCALE TAPER	1 INCH/FOOT

[illegible]

1. ALL DIMENSIONS ARE IN INCHES.
2. THE PROPELLER MATERIAL SHALL BE CORROSION RESISTANT STEEL AISI TYPE 304 L.
3. THE BORE TAPER SHALL SUIT THE 1" TAPER.
4. THE HUB MAY BE COUNTERBORED TO SUIT THE SHAFT SEAL.
5. THE PROPELLER SHALL SATISFY ABS REQUIREMENTS.

## This image shows a completely blank white page enclosed within a thick black rectangular frame. There are no markings, text, or illustrations on the page itself.

**PHILIP F. SPAULDING & ASSOCIATES, INC.**  
NAVAL ARCHITECTS • MARINE ENGINEERS  
44 MARION ST. SEATTLE, WASHINGTON 98104

CROSS - SOUND FERRY  
FOR  
WASHINGTON STATE HIGHWAY COMMISSION

FOUR BLADED PROPELLER

APPROVED <i>[Signature]</i>	DESIGN <u>EdH/RG.V</u>	CHECKED	DATE <u>9-2-71</u>
	DRAWN <u>EdH/RG.V</u>	CHECKED	SCALE <u>16 NOTED</u>
DRAWING NO.  7048-53-2			REVISION  F

CONTRACT GUIDANCE PLAN

EXPANDED BLADE  
WIDTH

38.42

47.60

55.60

55.63

51.79

47.60

43.42

37.22

35.04

DEVELOPED BLADE OUTLINE

PROJECTED BLADE OUTLINE

EXPANDED BLADE OUTLINE

$P/2\pi = 26.64$

BLADE SECTION  
PITCH

$1.0R = 78$

166.83

$.95R = 74.1$

166.25

$.9R = 70.2$

165.1

$.8R = 62.4$

163.95

$.7R = 54.6$

162.8

$.6R = 46.8$

161.65

$.5R = 39.0$

160.5

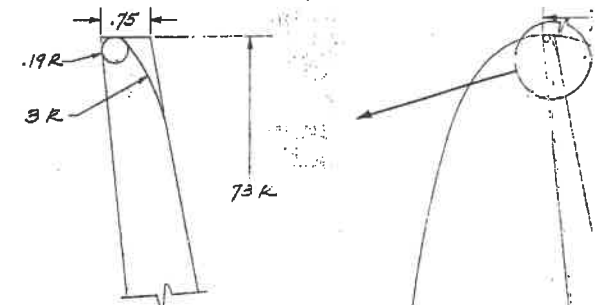
$.4R = 31.2$

159.35

$.3R = 23.4$

158.2

$.2R = 15.6$



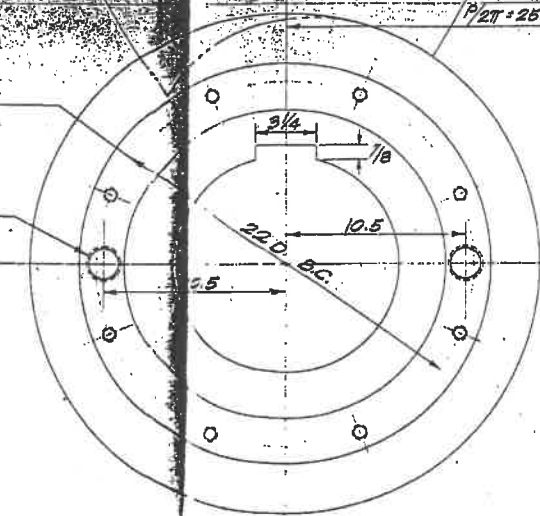
BLADE TIP DETAIL  
FULL SIZE

SECTION OF BLADE  
AT MICHIGAN

FACE  
(STRAIGHT)

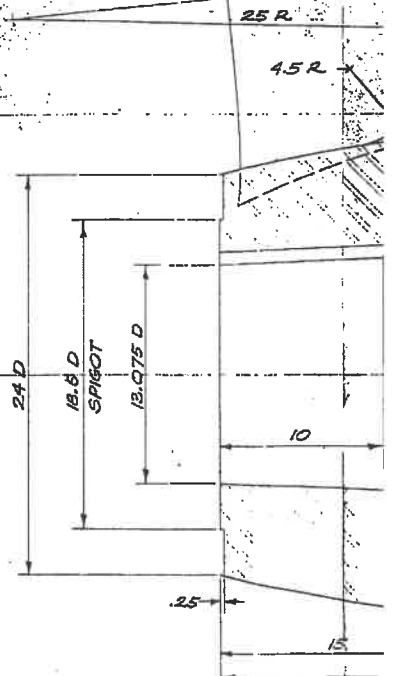
DRILL & TAP  $\frac{3}{4}$ "-10 UNC  
8 HOLES EQUALLY  
SPACED  $1\frac{1}{4}$ " DEEP

DRILL & TAP 2"-12 UNC  
2 HOLES  $2\frac{1}{2}$ " DEEP



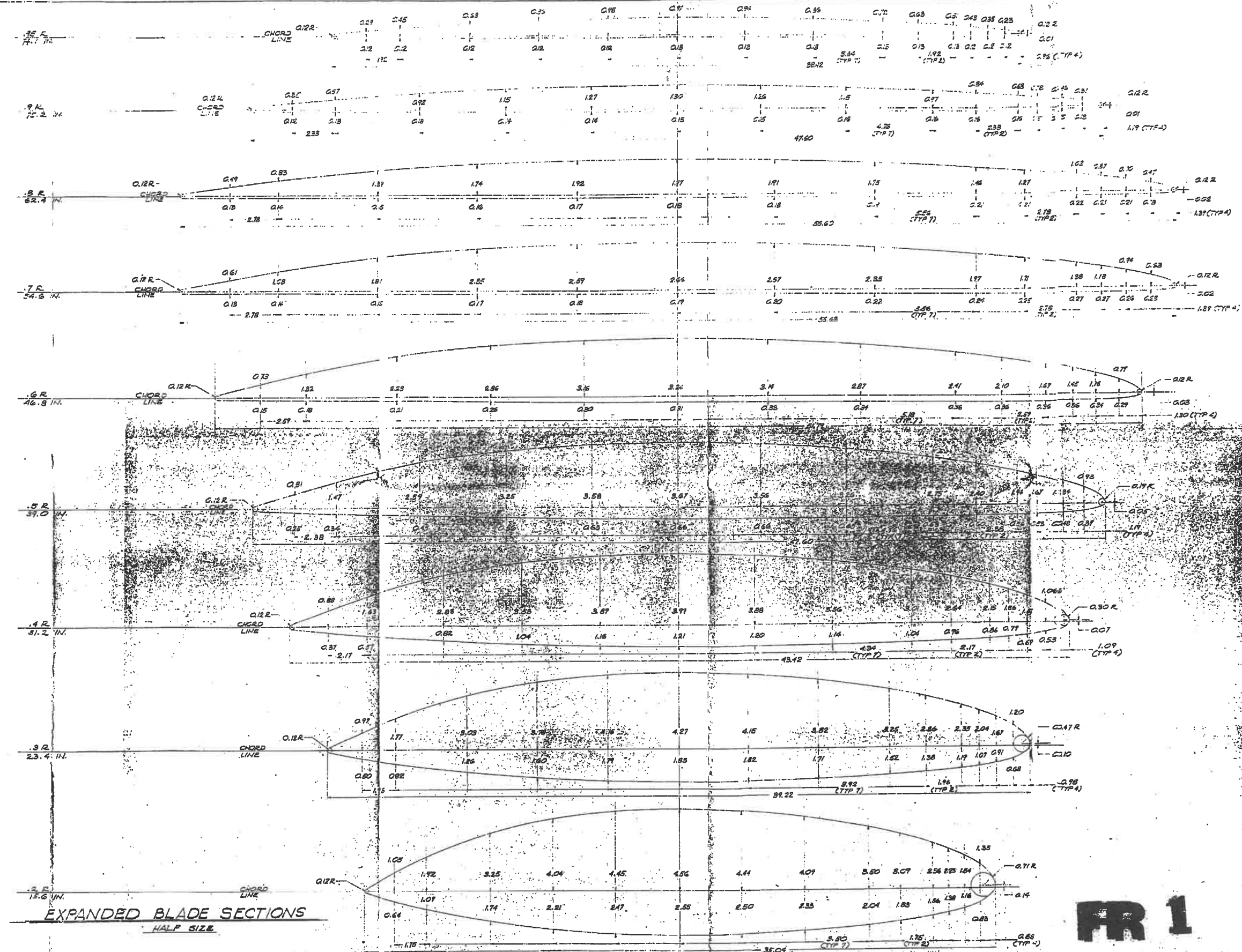
HUB & TYPICAL BLADE

$\frac{1}{4}$  SIZE



101

FR 2



**FBI**