

BCHG7CBHBI 98.

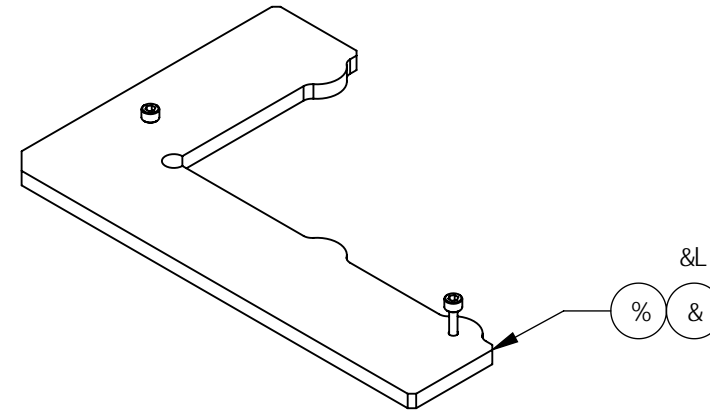
G7F69Z9B; F5J9F5J 4F5HC FMHC C@A 5M691 098LZ
G9F A 5F? CFA 97 <5B-75@MG5A DfBC -B?GCF
8M9G:8F5K B: D5FHBI A 69FZ9J 6C B f5B8
J5F5BHCF "MD9" = 5DD@756@L CB BC H8 G F: 579
C: D5FH: C@C K 98 CB H: 9B 9LH@B 9K H: 5 H: F99
8 = HG9F 5@BI A 69F "G9F 5@BI A 69F GG6FH5H55%
: CF H: 9: FGH5FH7 @9 5B8 DFC 7 998 7 C BG97 I H 9@M
I G9A -B A I A "\$%&" <= < 7 <5F57 HF Q2 I B @GGH: 9 G@P
C: H: 9 D5FH8 7 H5HGGA 5 @9F 7 <5F57 HF G
9L5A D@9: 8 LLLLLLLL J M HMD9 L L Z @B L L L

*** A 57 < B 9 5 @ G F: 5 7 9 G H C F 9 A C J 9 C L 8 9 G 5 B 8 A @ @: B 6 < 2
... I G 9 C: 5 6 F 5 G 9 F 9 A C J 5 @ H 7 < B E I 9 G 6 B C H 5 @ C K 9 8 "
... F 9 9 F H C @: C I 9 \$: S \$ " ("

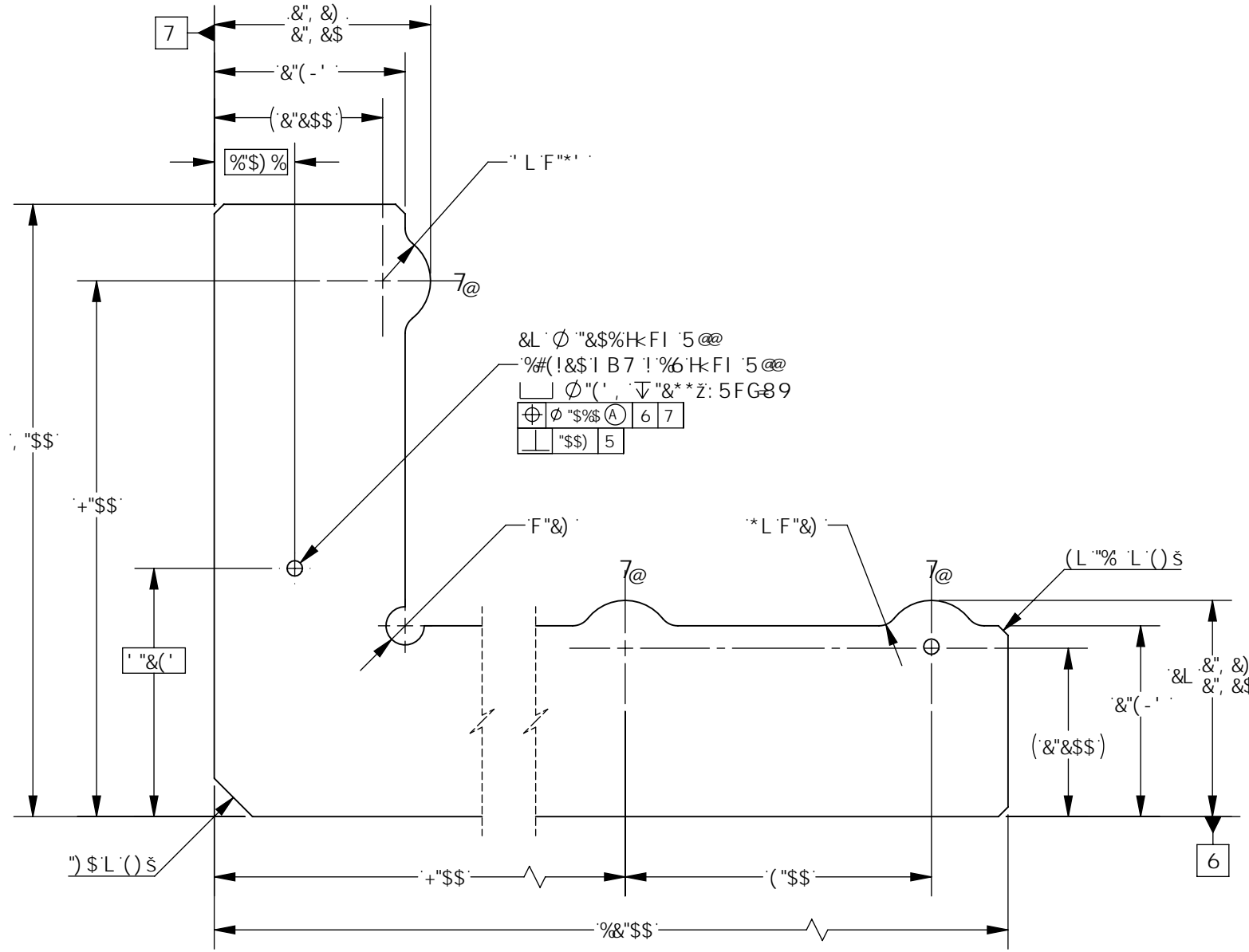
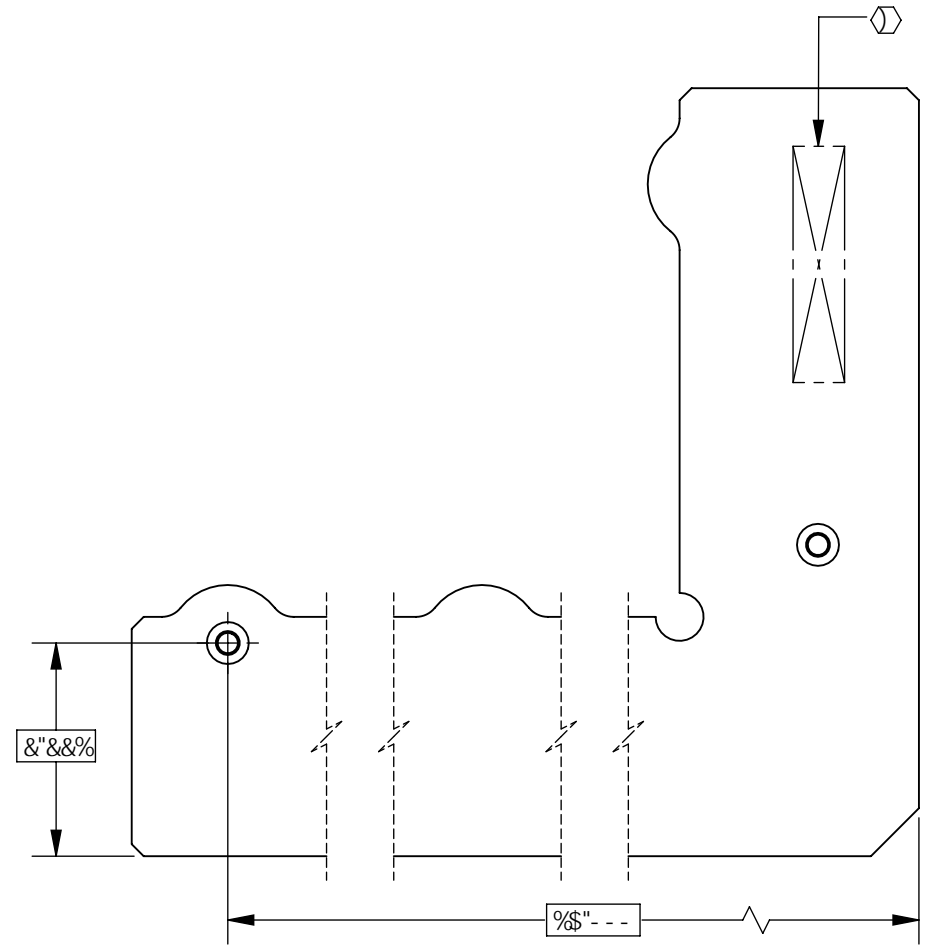
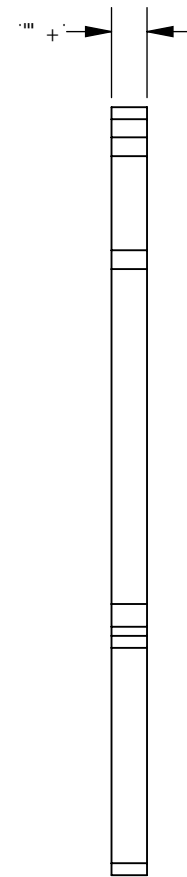
*... 5 @ D 5 F H G C 5 @ 6 9 A 5 B I: 5 7 H F 9 8 - B 5 7 7 C F 8 5 B 7 9 K H:
@: C D 9 7 = 7 5 H C B 9 \$: S \$ " ("

% 5 @ A 5 H F 5 @ G H C 6 9 J F: B A 5 H F 5 @ H Y " B C K 9 @ B F 9 D 5 F G 2
... D @: G C F F 9 7 M 7 @ 8 A 5 H F 5 @ B C F 9 D 5 F G C 5 @ 6 9 A 5 8 9 1 B @ G G
... 5 D D F C J 9 8 - B 5 8 J 5 B 7 9 2 5 B 8 - B K F H B: 2 6 M @: C @ 6 C F 5 H C F M
... F 9 9 F H C @: C I 9 \$: S \$ " ("

F9J "	85H9	87B:	8F5K-B; HF99,
j %	%&: 96 &\$%	9% \$\$%&) !! \$!
!	!	!	!
!	!	!	!



6C J 9K



&L Ø "\$%&HkFI '5@
%#(!&\$! B7 ! '%HkFI '5@
□ □ Ø "(' , ∇ "&* * z: 5FG89
⊕ ⊕ "\$%\$ (A) 6 7
□ □ "\$\$" 5

&	-) - ** 5) &- A WA 5GH9F!75FF	G7 F9K žG<7 ž%#(!&\$'L '%\$@ "ž7 5DHJ 9	&
%	8 % \$\$%&\$!%\$%	5 @ C žG9ž<5A * 'CA 7 -BG5 @5 HC B D@H9	%
#PA BC "	D5FHBI A 69F	8 9G7 F @HC B	E HM

D5FHG@GH

BCHG5B8HC@F5B79Gfl B@GGCH:9FK 49G97 = 98L

8A 9BGC BG5F9-B B7 <9G
HC @F 5B7 9G
LL "±" \$%
LLL "±" \$%
5B: I @5F ± *

LIGO 75@CFB5-BGHH H9C: H97 <BC@; M
A5G67 <I G9HG-BGHH H9C: H97 <BC@; M

58J5B798 @ C G9=

A 5HF-5@ B#5 B#5 σjwM 8% \$\$\$++

D5FH5A 9 5@ C žG9ž<5A * 'CA 7 -BG5 @5 HC B D@H9 5GGM

89G: B9F	9'GSB7 <9N	9%: 96 &8%	GMP BK: "BC"	F9J "
8F5: HF	9'GSB7 <9N	9%: 96 &8%	6	j %
7 < 97 ? 9F	G99 87 7	G99 87 7	8 % \$\$%&\$	
5DDFCJ 5@	G99 87 7	G99 87 7	G7 5@. %&	

DFC > 97 HCB. G< 99H% C: %

8% \$\$%&\$ 5 @ C žG9ž<5A * 'CA 7 -BG5 @5 HC B D@H9 5GGMZD5 FHD8A F9J . LI.\$%&ž8F5K -B; D8A F9J . LI.\$%