

Note: Dive Door moved to starboard side.

O'BD PROFILE & PLAN
Response FR-225, (22'5"x8'6")
For: Viking Welding

SCALE 1/2" = 1'	DES/DWN WAL	DATE 12/1/09
Response Marine, Inc. Newburyport, MA, www.responsemarine.com		SHEET DWG NO. 345-1

REV.	DESCRIPTION

NC Parts

Response Marine, Inc. Plaz Parts for #339- USACE
 File: RMIDes\Cianbro 22\#345, Florence FR-22
 revised: 11/10/09

Print Date: 11/23/2009

1/8" Parts- 5052

	<u>Part #</u>	<u>Pieces</u>	<u>Description</u>	<u>Bend</u>	
11/10/09	C-1	1	Console Body	Y	On Marks, Tight Radius
11/10/09	C-2	1	Console Back	Y	On Marks, Tight Radius
11/10/09	C-3	1	Console Top	Y	On Marks, Tight Radius
11/10/09	LP-1	1	Lean Post Body	Y	On Marks, Tight Radius
11/10/09	LP-2	1	Lean Post, Shelf		
11/10/09	LP-3	1	Lean Post, Face		
11/10/09	WS	1	Windshield w/ Side Panels	Y	On Marks, Tight Radius
11/10/09	WS-R	1	Windshield Roof	Y	On Marks, Tight Radius
11/10/09	WS-RJ	2	Windshield Roof JIG		
11/10/09	WS-VA	1	Windshield Visor, FWD		
11/10/09	WS-VB	1	Windshield Visor, AFT		
		12	Sub Total		

3/16" Parts- 5052

	<u>Part #</u>	<u>Pieces</u>	<u>Description</u>	<u>Bend</u>	
	ALB	1	Anchor Locker Bottom		
	DB-AP	1	Deck Body, Fwd, Port		
	DB-AS	1	Deck Body, Fwd, Stbd		
	DB-B	1	Deck Body, Mid		
11/10/09	DB-C	1	Deck Body, Aft		
	DSP-A	1	Deck Soft Patch Fwd		
11/10/09	DSP-B	1	Deck Soft Patch Aft		
	FT-1	1	Fuel Tank Body	Y	On Marks, Tight Radius
	FT-2	2	Fuel Tank Long'l Baffles		
	FT-3	2	Fuel Tank Ends		
11/10/09	FT-5	1	Fuel Tank Top		
	FTK-L	2	Fuel Trunk Lid		
	FTK-P	1	Fuel Trunk- Port	Y	On Marks, Tight Radius
	FTK-S	1	Fuel Trunk- Stbd	Y	On Marks, Tight Radius
	TL	2	Transom Side Liner		
		19	Sub Total		

3/16" Parts- 5086

	<u>Part #</u>	<u>Pieces</u>	<u>Description</u>	<u>Bend</u>	
	BG-1S	2	Bow Girder		
	BG-2AP	1	Girder #2, Fwd, Port	Y	Flange B-1
	BG-2AS	1	Girder #2, Fwd Stbd	Y	Flange B-1
	BG-2BP	1	Girder #2, Aft, Port	Y	Flange B-1
	BG-2BS	1	Girder #2, Aft, Stbd	Y	Flange B-1

NC Parts

BG-3P	1	Girder #3, Port	Y	Flange B-1
BG-3S	1	Girder #3, Stbd	Y	Flange B-1
BOT-P	1	Bottom, Port		
BOT-S	1	Bottom, Stbd		
BOW	1	Bow		
DD-C	1	Dive Door, Coaming Step		
DD-FA	1	Dive Door, Frame Fwd	Y	Flange B-1
DD-FB	1	Dive Door, Frame Aft	Y	Flange B-1
DD-HFA	1	Dive Door, Hull Frame Fwd	Y	Flange B-1
DD-HFAL	1	Dive Door, Hull frame Fwd, Lower		
DD-HFB	1	Dive Door, Hull Frame Aft	Y	Flange B-1
DD-HFBL	1	Dive Door, Hull Frame Aft, Lower		
DD-HT	1	Dive Door, Hull Threshold	Y	Flange B-1
DD-T	1	Dive Door, Door Threshold		
DM-P	1	Deck Margin, Port		
DM-S	1	Deck Margin, Stbd		
F1	1	Frame 1		
F2	1	Frame 2	Y	Flange B-1
F2-U	2	Frame 2, Upper	Y	Flange B-1
F3	1	Frame 3	Y	Flange B-1
F3-U	2	Frame 3, Upper	Y	Flange B-1
F4	1	Frame 4	Y	Flange B-1
F5	1	Frame 5	Y	Flange B-1
F5-U	2	Frame 5, Upper	Y	Flange B-1
F6	1	Frame 6	Y	Flange B-1
FD	1	Foredeck		
FDC	1	Fwd Deck Coaming		
K-D	2	Keel Doubler		
PK-1	4	Push Knee, Sides		
PK-2	2	Push Knee, Faces		
PK-3	2	Push Knee, Tops		
PK-4	2	Push Knee, Bottoms		
SDC-AP	1	Side Deck Coaming, Aft, Port		
SDC-AS	1	Side Deck Coaming, Aft, Stbd		
SDC-P	1	Side Deck Coaming, Port		
SDC-S	1	Side Deck Coaming, Stbd		
SD-P	1	Side Deck, Port		
SD-S	1	Side Deck, Stbd		
TS-P	1	Topsides, Port		
TS-S	1	Topsides, Stbd		
TSS-AP	1	Topside Shelf, Fwd Port	Y	Flange B-1
TSS-AS	1	Topside Shelf, Fwd Stbd	Y	Flange B-1
TSS-Bow	1	Topside Stringer, F1 to Bow		
TSS-BP	1	Topside Shelf, Mid, Port	Y	Flange B-1
TSS-BS	1	Topside Shelf, Mid, Stbd	Y	Flange B-1
TSS-CP	1	Topside Shelf, Aft, Port	Y	Flange B-1
TSS-CS	1	Topside Shelf, Aft, Stbd	Y	Flange B-1

63 Sub Total

1/4" Parts- 5083/5086

<u>Part #</u>	<u>Pieces</u>	<u>Description</u>
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NC Parts

BS-1	2	Bottom Longitudinal 1 (fwd)
BS-1A	2	Bottom Longitudinal 1 (aft)
BS-2	2	Bottom Longitudinal 2 (fwd)
BS-3	2	Bottom Longitudinal 3 (fwd)
CP	1	Chine, Port
CS	1	Chine, Stbd
TR	1	Transom
	11	Sub Total

3/8" Parts-5083/5086

<u>Part #</u>	<u>Pieces</u>	<u>Description</u>
K-A	1	Keel, Fwd
K-B	1	Keel, Mid
K-C	1	Keel, Mid Aft
K-D	1	Keel Aft
TEL	1	Transom Engine Lip
	5	Sub Total
	110	Total Cut Parts

Response Marine, Inc.
Viking Welding

Stock List
345 FLORENCE 22'x8'
11/25/09 REVISED 7/12/19

SHEET/PLATE For NC Cutting

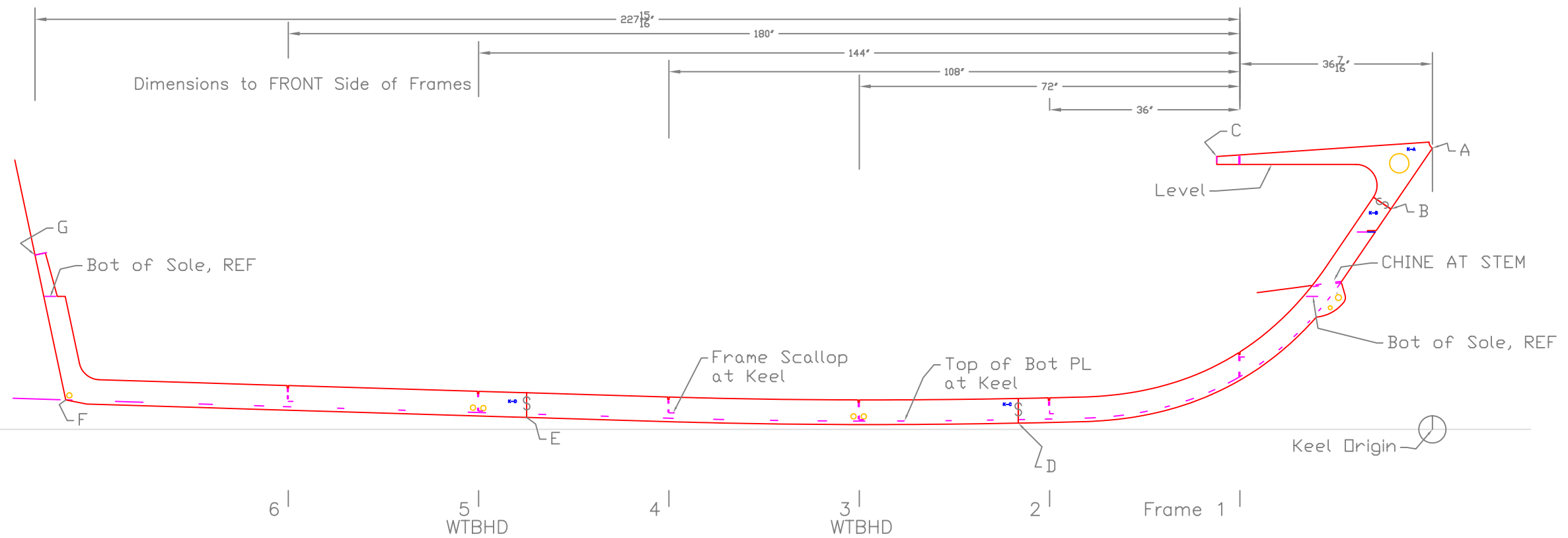
<u>QTY</u>	<u>Alloy</u>	<u>Thick</u>	<u>Width</u>	<u>Lngth</u>	approx. <u>lbs/ft^2</u>	<u>lbs</u>
7	5086 marine, ASTM B928	0.190	48	288	2.7	1,814
1	5086 marine, ASTM B928	0.250	72	288	3.6	518
1	5086 marine, ASTM B928	0.375	36	96	5.4	130
2	5052	0.190	60	144	2.7	324
2	5052	0.190	72	96	1.8	173
4	5052	0.125	48	72	1.8	173
Sub Total Plate to be Cut						3,132

SHEET/PLATE (Stock, Do Not Cut)

<u>QTY</u>	<u>Alloy</u>	<u>Thick</u>	<u>Width</u>	<u>Lngth</u>	approx. <u>lbs/ft^2</u>	<u>lbs</u>
2	5052 H32 (for forward benches)	0.125	48	96	1.8	115
Total Sheet/Plate						3,247

Response Marine, Inc.
Drawing List

Design	Dwg	Description	Date
# 345, FLORENCE FR, 22x8 from USACE			
345	1	OB Pro & Plan	12/1/09
	2-1	Keel Layout	12/1/09
	2-2	Girder Layout	12/1/09
	2-3	Hull Skin Layout	12/1/09
	2-4	Bow & Transom	12/1/09
	2-5	Side & Fore Decks	12/1/09
	2-6	Cockpit Decks	12/1/09
	3-1	Fuel Tank, 60 Gal	12/1/09
	4-1	Console	12/23/09
	4-2	Console Windshield	12/23/09
	4-3	Console Roof	12/23/09
	4-4	Leaning Post	5/10/10
	7-1	Window Set	12/23/09
	B-1	Typical Flange Bending	12/1/09
	F-R	Frame Dimensions	12/1/09
	F-1	Frame 1	12/1/09
	F-2	Frame 2	12/1/09
	F-3	Frame 3	12/1/09
	F-4	Frame 4	12/1/09
	F-5	Frame 5	12/1/09
	F-6	Frame 6	12/1/09



Response Marine, Inc.
 #345, FLORENCE 12/1/09
 Keel Points

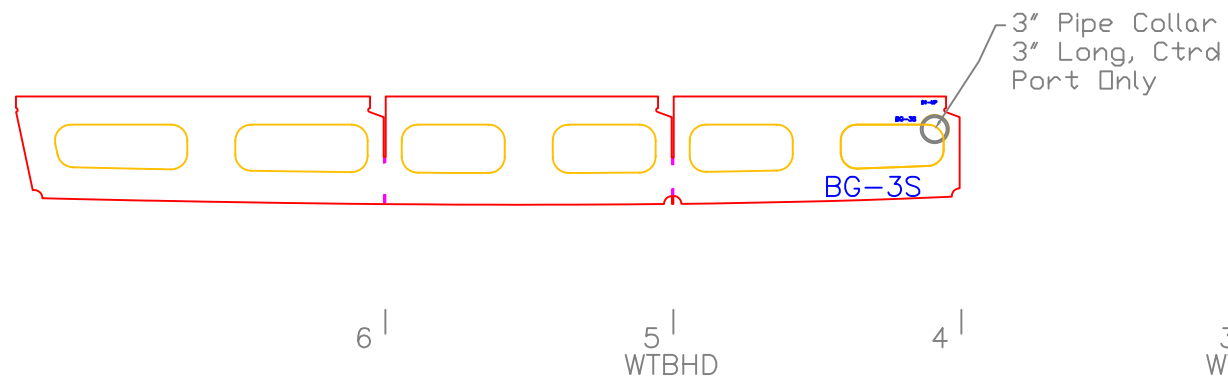
	Inches- sixteenths		Feet	
	Horizontal	Vertical	Horizontal	Vertical
A to Origin	0			4.4314
B to Origin	7 14/16			3.4711
C to Origin	40 13/16			4.2995
D to Origin	78 5/16			0.0983
E to Origin	171 5/16			0.1883
F to Origin	258 8/16			0.4645
G to Origin	264 5/16			2.7466

	ALIGNED (INCHES)						
	A	B	C	D	E	F	G
A to		13 15/16	40 13/16	94	178 12/16	262 14/16	265 2/16
B to			34 6/16	81 4/16	168 3/16	253 4/16	256 10/16
C to				62 14/16	139 9/16	222 9/16	224 5/16
D to					93	180 4/16	188 11/16
E to						87 4/16	97 15/16
F to							27 6/16

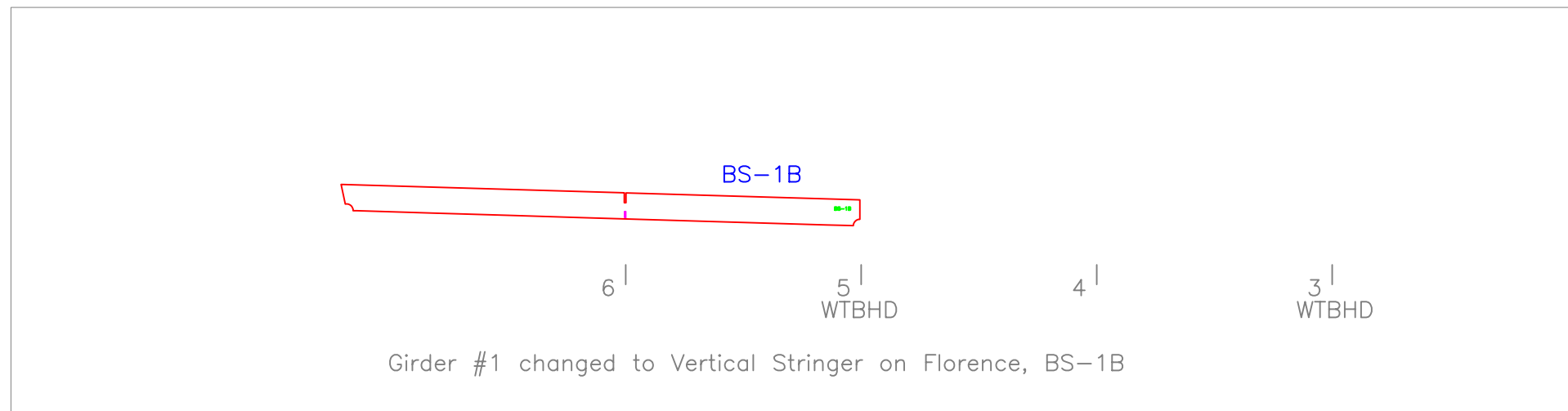
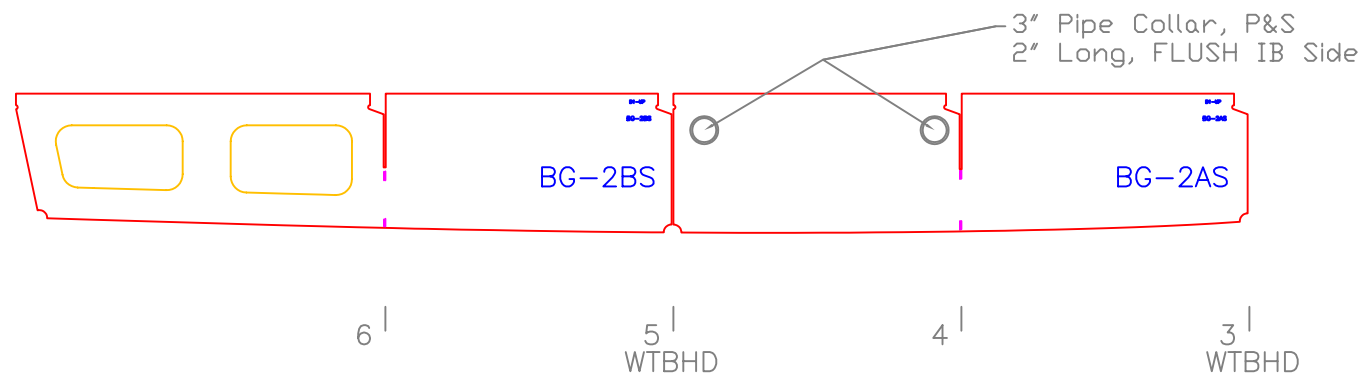
Note: Keel Dims & Parts are Identical to #339, USACE

REV.	DESCRIPTION

KEEL LAYOUT		
FLORENCE 22'4" x 8'		
SCALE 1/2" = 1'	DES/DWN WAL	DATE 12/1/09
Response Marine, Inc. Newburyport, MA, www.responsemarine.com		SHEET 345-2-1

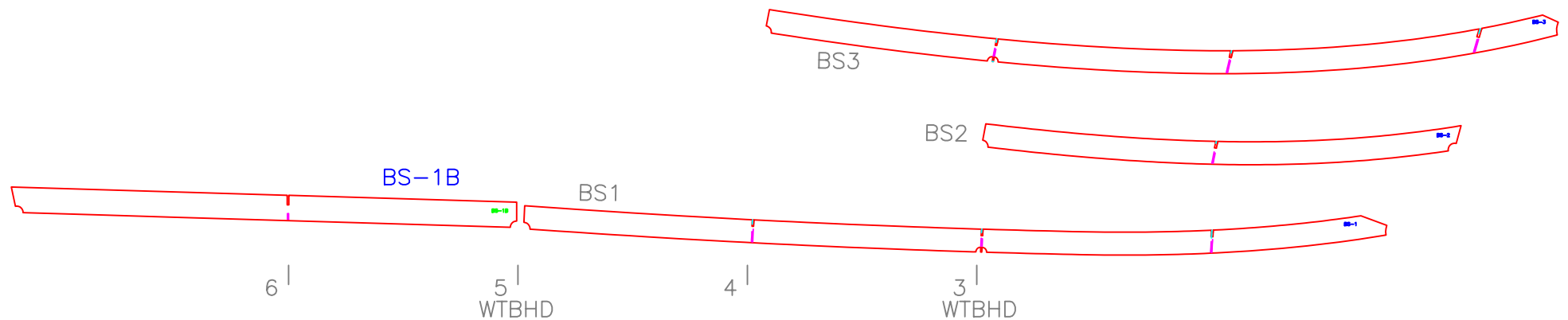
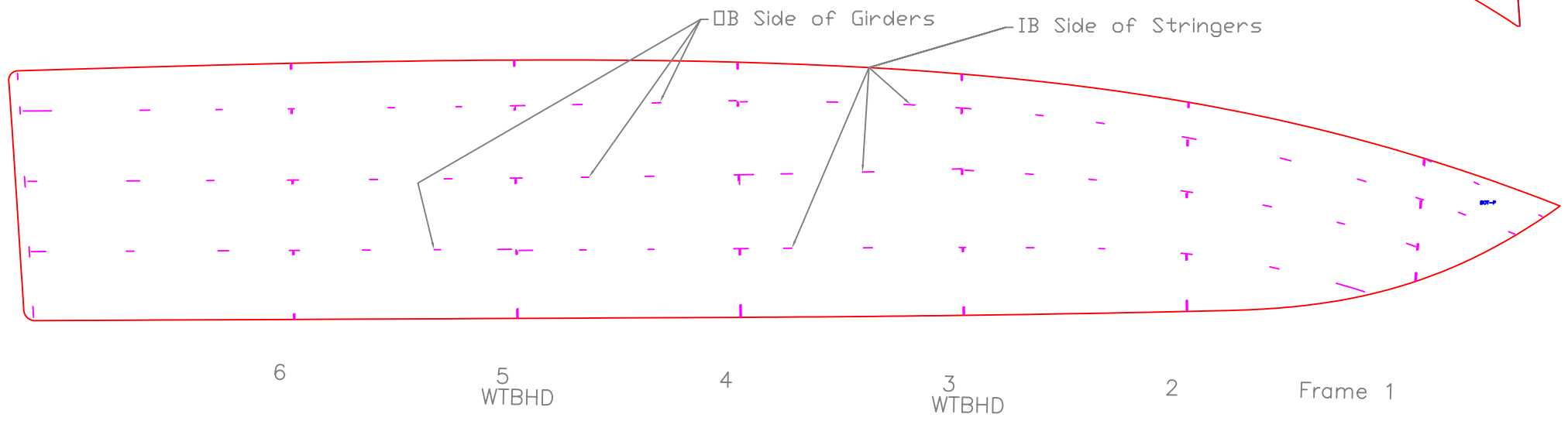
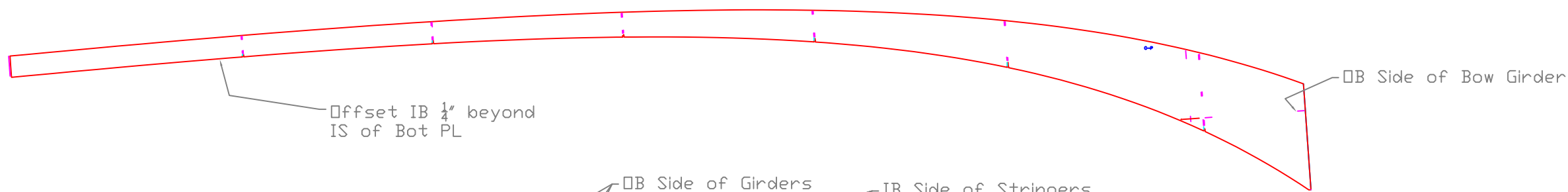
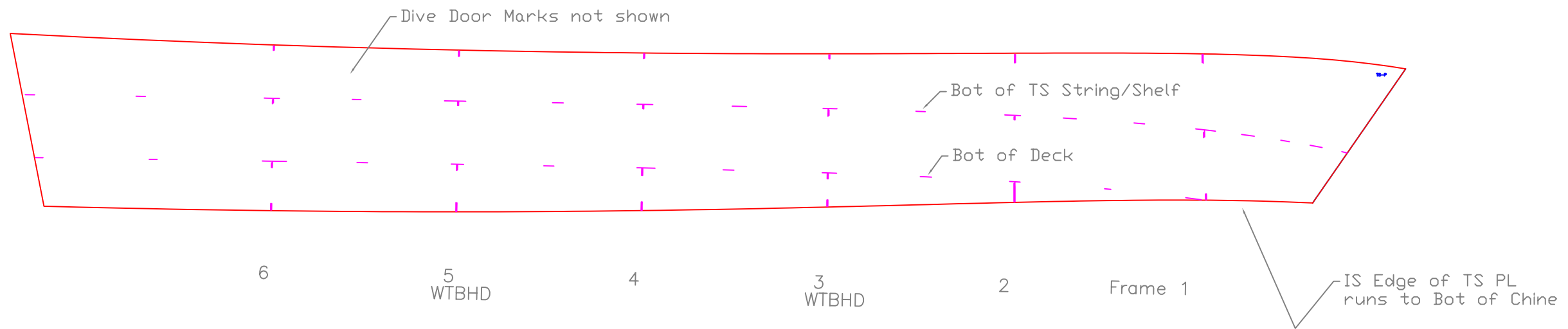


Bent Flanges install OUTBOARD
No Flanges on Cutouts



GIRDER LAYOUT		
FLORENCE 22'4" x 8'		
SCALE 1/2" = 1'	DES/DWN WAL	DATE 12/1/09
Response Marine, Inc. Newburyport, MA, www.responsemarine.com		SHEET DWG NO. 345-2-2

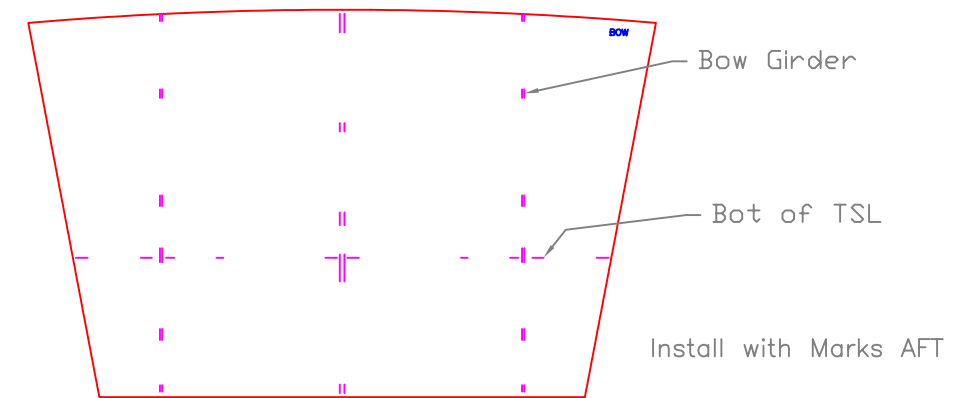
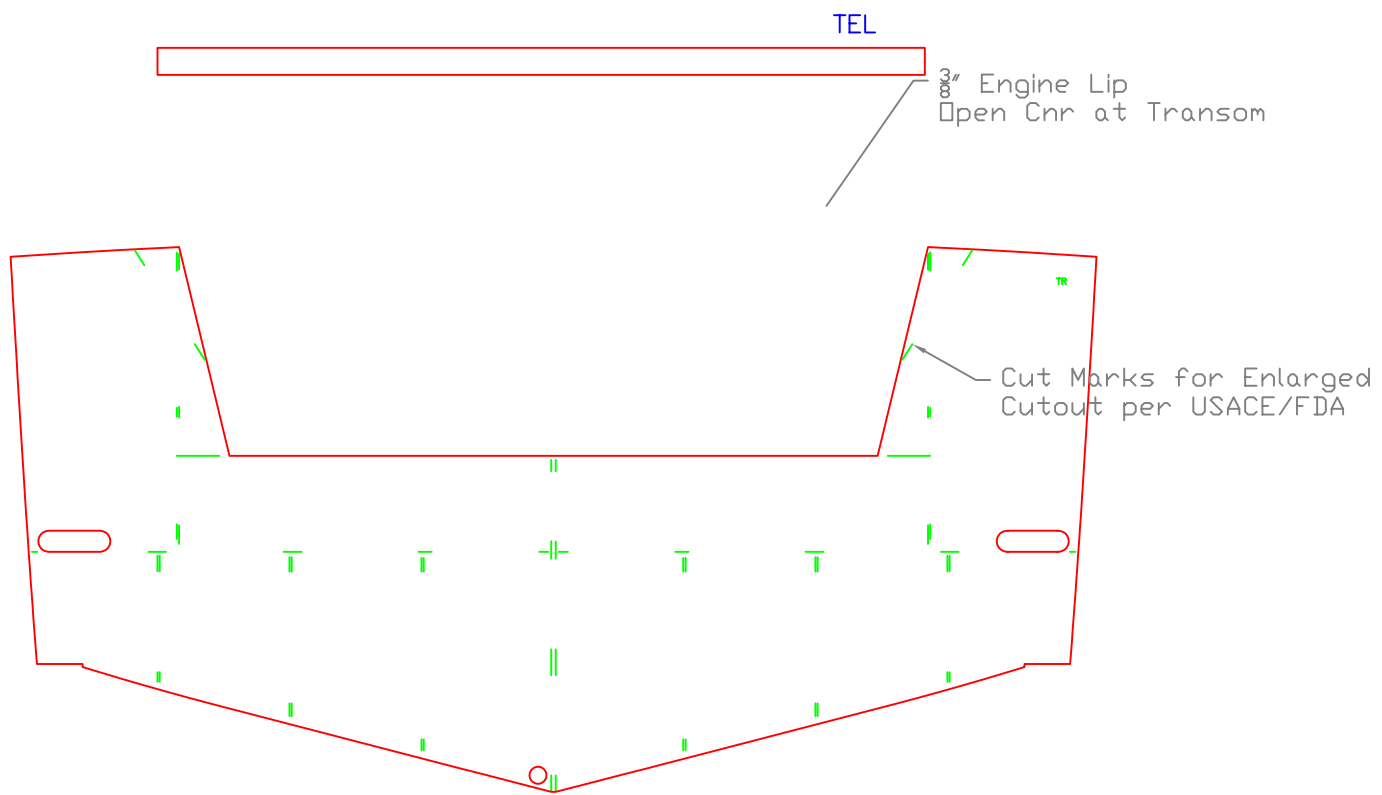
REV. DESCRIPTION



Girder #1 changed to Vertical Stringer on Florence, BS-1B

REV. DESCRIPTION

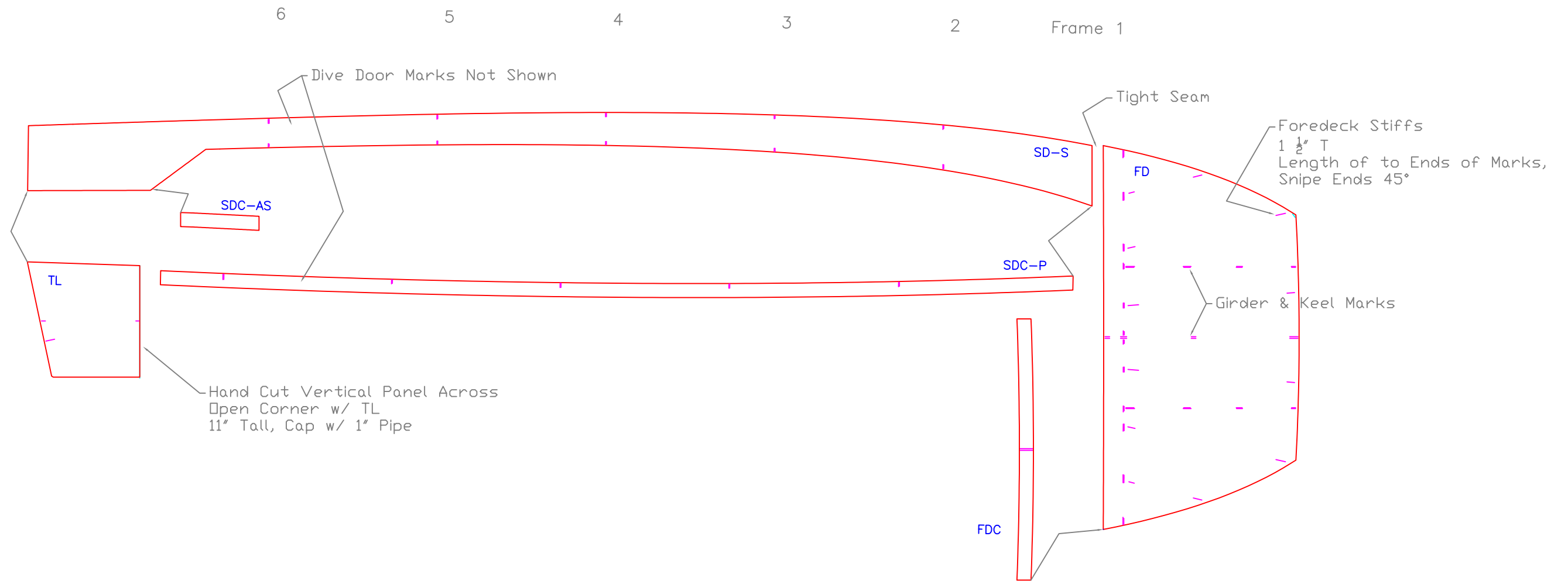
HULL SKIN LAYOUT		
FLORENCE 22'4" x 8'		
SCALE 1/2" = 1'	DES/DWN WAL	DATE 12/1/09
Response Marine, Inc.		SHEET
Newburyport, MA, www.responsemarine.com		DWG NO. 345-2-3



Note: Both Parts Identical to USACE except cut marks on Transom

REV.	DESCRIPTION

BOW & TRANSOM		
FLORENCE 22'4" x 8'		
SCALE 3/4" = 1'	DES/DWN WAL	DATE 12/1/09
Response Marine, Inc. Newburyport, MA, www.responsemarine.com		SHEET DWG NO. 345-2-4



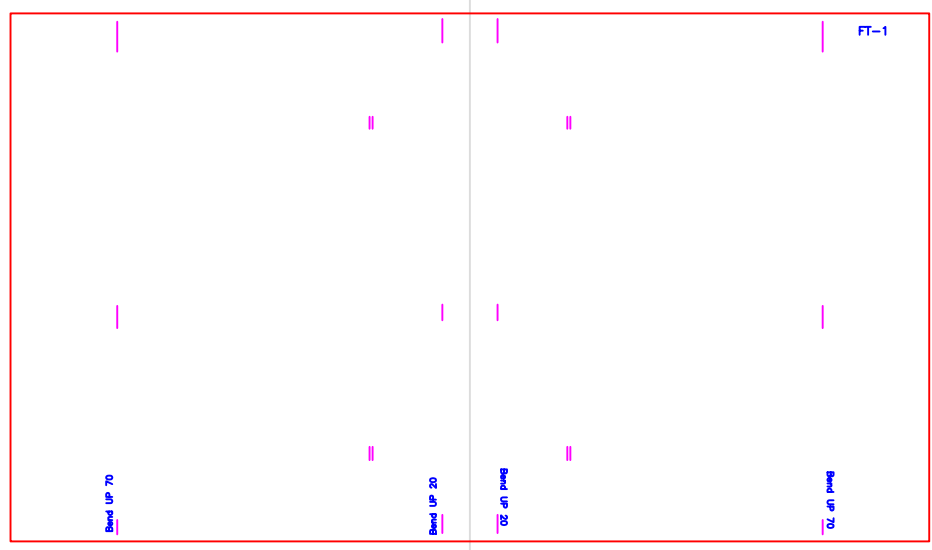
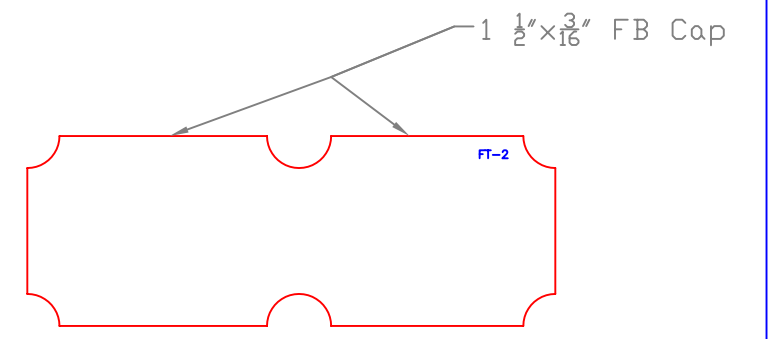
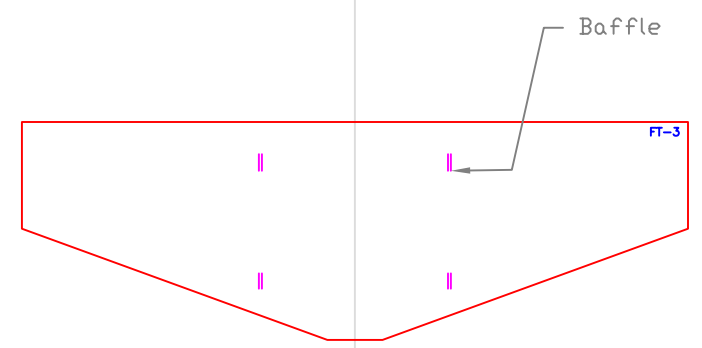
Identical to USACE, except Dive Door Marks on Side Decks & Coaming

REV.	DESCRIPTION

SIDE & FORE DECKS
FLORENCE 22'4" x 8'

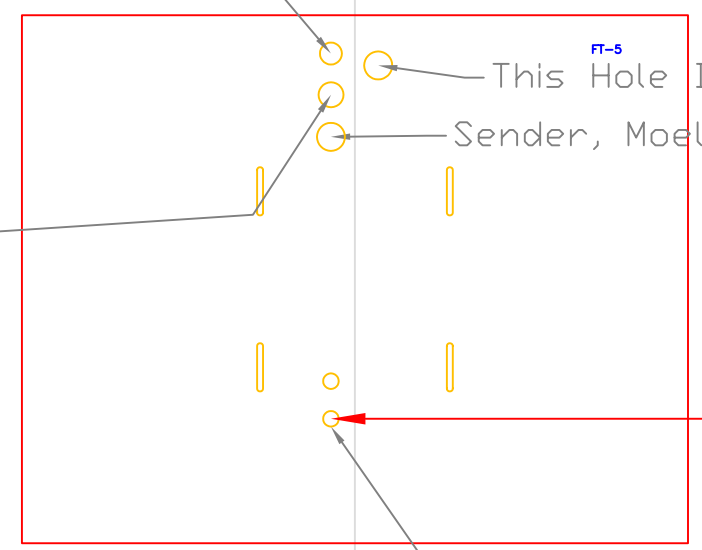
SCALE 1/2" = 1'	DES/DWN WAL	DATE 12/1/09
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Response Marine, Inc. Newburyport, MA, www.responsemarine.com	SHEET DWG NO. 345-2-5
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3/4" Cplg for 3/4 x 1/2" SS Bush, 1/2" x 5/8" BR Barb
Lead to PORT

1 1/2" FILL, 90° Lead to PORT
Mitered 1 1/2" OD Tubing
Keep top at 2" above Tank



Pick Ups
3/8" Cplg welded at tank
to receive 3/8" Withdrawal tubes & Valves
Lead to Port

as moved FOR FLORENCE
091110 for access btwn console & LP
May need 3rd for Pump!!

FUEL TANK, 60 Gal.		
FLORENCE 22'4" x 8'		
SCALE 1"=1'	DES/DWN WAL	DATE 12/1/09
Response Marine, Inc.		SHEET
Newburyport, MA, www.responsemarine.com		DWG NO. 345-B-1

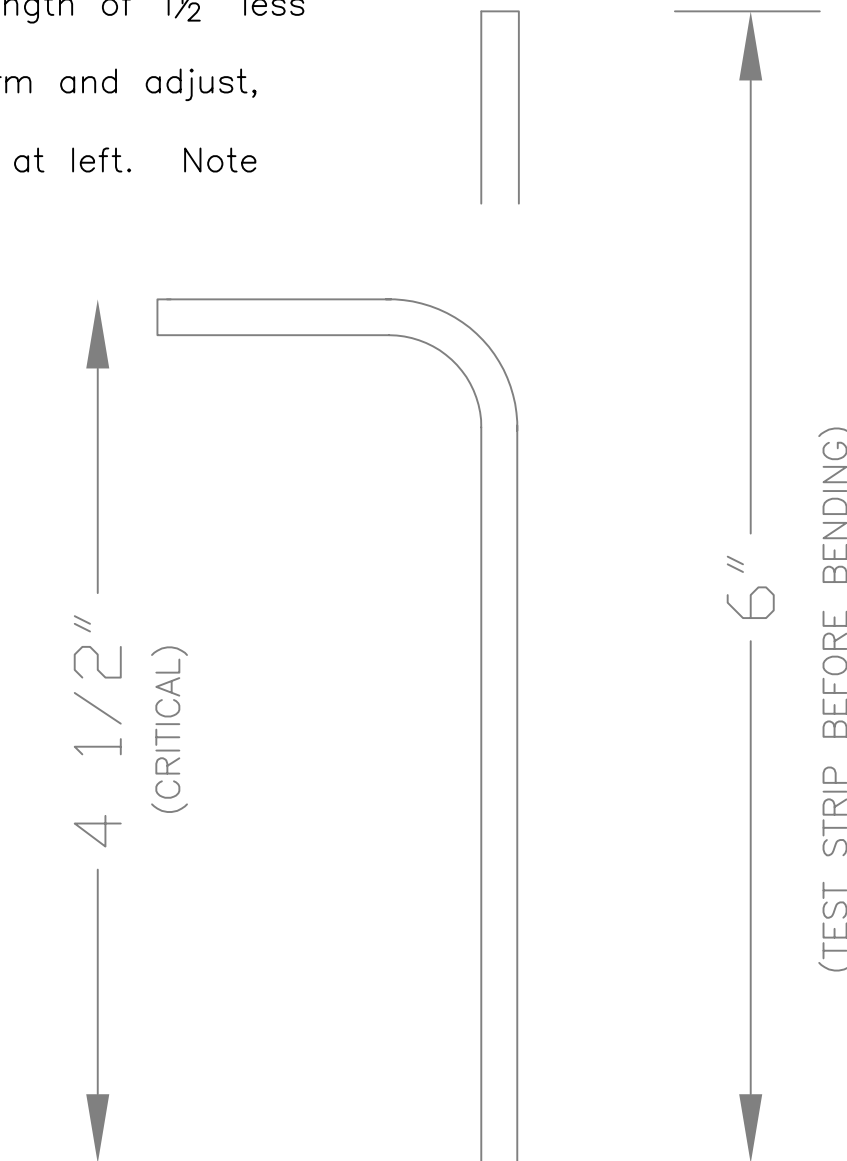
REV. DESCRIPTION

STANDARD FLANGE BENDING: $\frac{3}{16}$ " 5086/83 H116 Stock

- 1) Confirm results for dimensions and cracking with test strips before bending frames.
- 2) Expected Die Radius is $\frac{1}{2}$ "
- 3) Flanges are designed for outside major flange length of $1\frac{1}{2}$ " less than flat stock length as shown.
- 4) Expected Back Gauge setting is 1.74", but confirm and adjust, based on test strip.

Parts to be flanged per this same set-up are listed at left. Note the notes for the bottom two.

BG-2AP	1	Girder #2, Fwd, Port
BG-2AS	1	Girder #2, Fwd Stbd
BG-2BP	1	Girder #2, Aft, Port
BG-2BS	1	Girder #2, Aft, Stbd
BG-3P	1	Girder #3, Port
BG-3S	1	Girder #3, Stbd
DD-FA	1	Dive Door, Frame Fwd
DD-FB	1	Dive Door, Frame Aft
DD-HFA	1	Dive Door, Hull Frame Fwd
DD-HFB	1	Dive Door, Hull Frame Aft
DD-HT	1	Dive Door, Hull Threshold
F2	1	Frame 2
F2-U	2	Frame 2, Upper
F3	1	Frame 3
F3-U	2	Frame 3, Upper
F4	1	Frame 4
F5	1	Frame 5
F5-U	2	Frame 5, Upper
F6	1	Frame 6
TSS-AP	1	Topside Shelf, Fwd Port
TSS-AS	1	Topside Shelf, Fwd Stbd
TSS-BP	1	Topside Shelf, Mid, Port
TSS-BS	1	Topside Shelf, Mid, Stbd
TSS-CP	1	Topside Shelf, Aft, Port
TSS-CS	1	Topside Shelf, Aft, Stbd

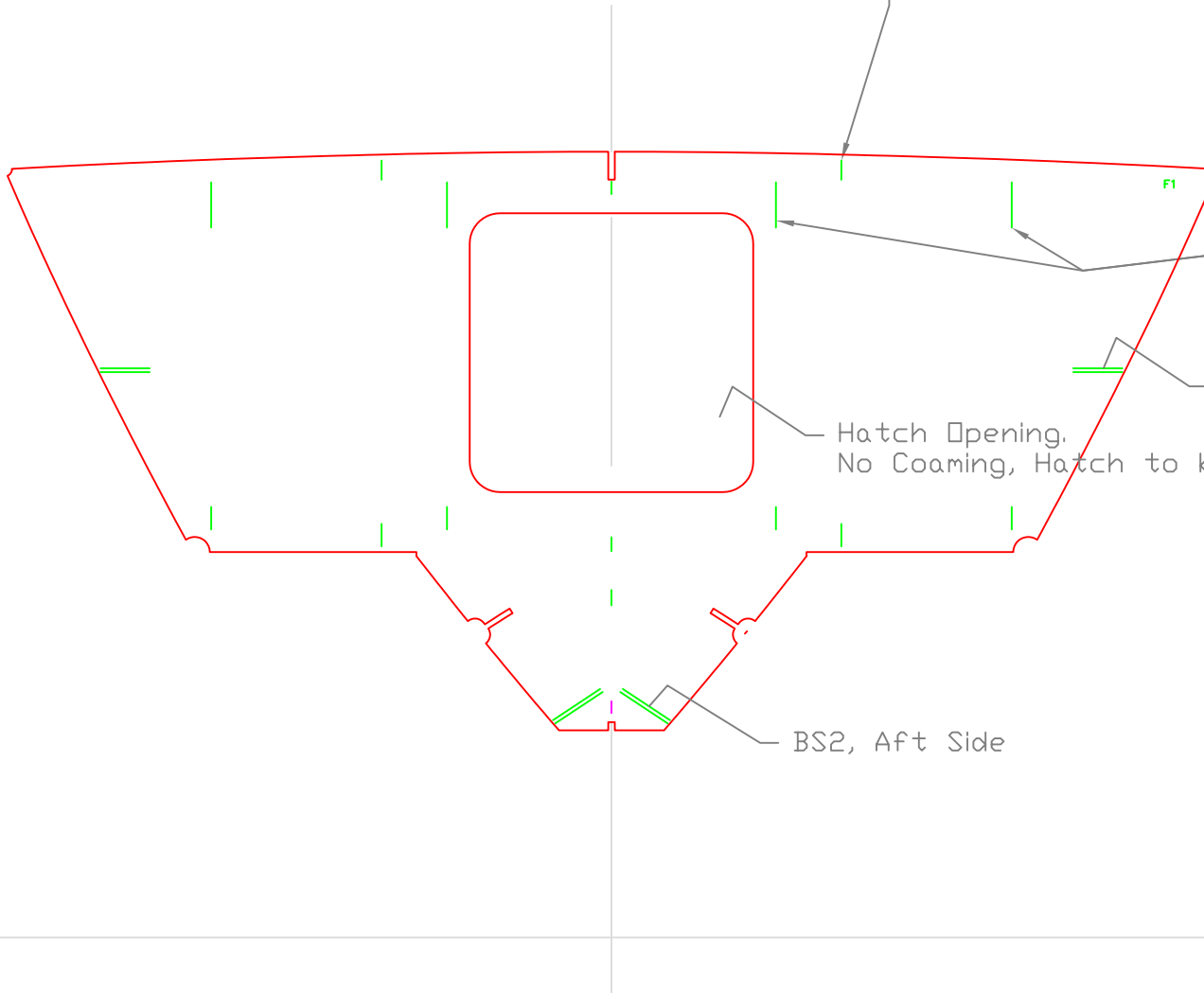


REV.		DESCRIPTION

TYP. FLANGE BENDING		
FLORENCE 22'4" x 8'		
SCALE	DES/DWN	DATE
FULL	WAL	12/1/09
Response Marine, Inc.		SHEET
Newburyport, MA, www.responsemarine.com		DWG NO. 345-B-1

Install w/ Marks & Stiffeners FWD

Bow Girder Stiff
Mark is \square B Side



$1 \frac{1}{2}'' \times \frac{1}{4}''$ T
Run to Long End of Marks
Snipe Ends 45 Degrees

TS Shelf/Stiff

Hatch \square Opening.
No Coaming, Hatch to be Fabbed

BS2, Aft Side

FRAME 1

FLORENCE 22'4" x 8'

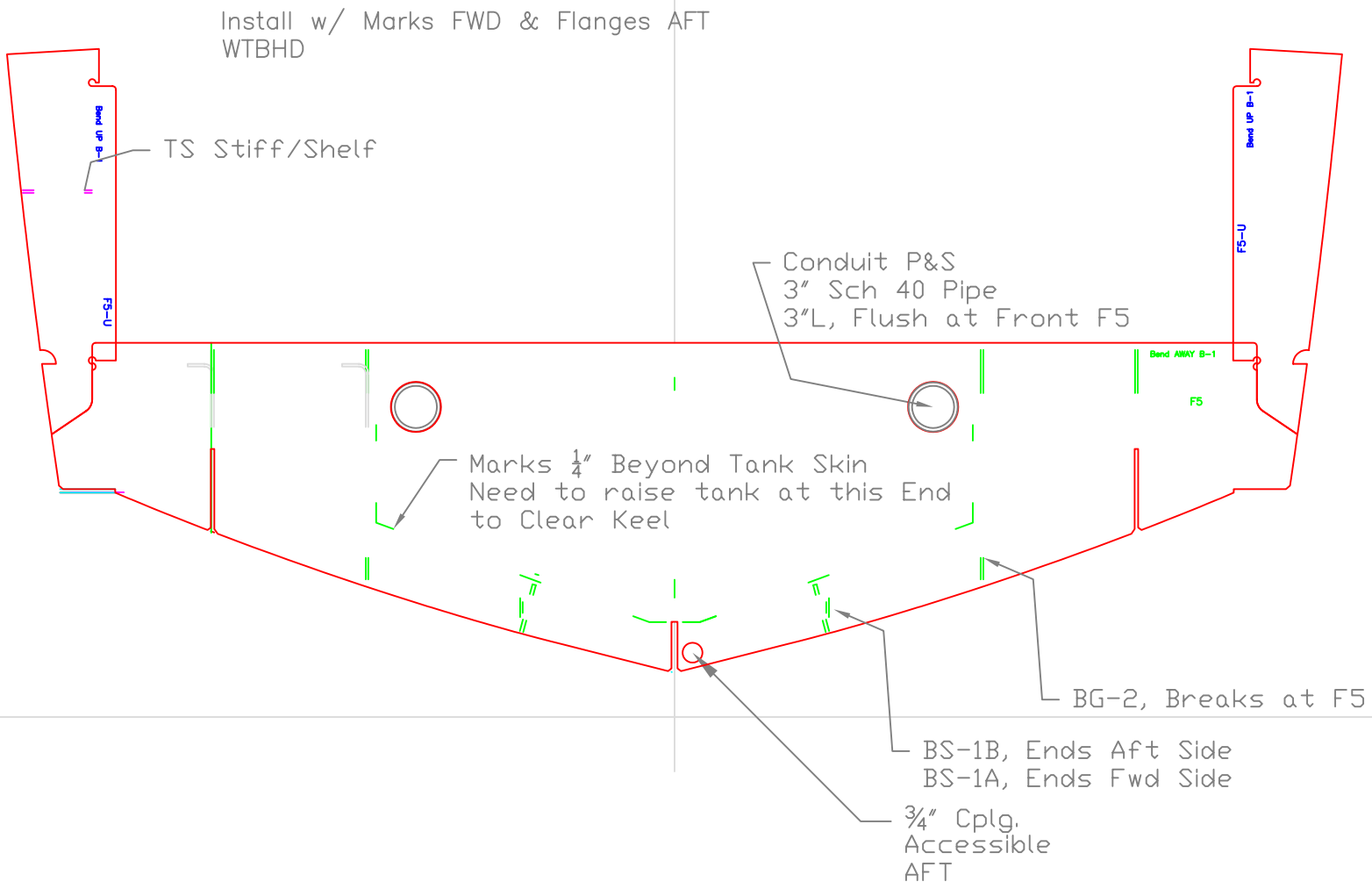
SCALE 1" = 1'	DES/DWN WAL	DATE 12/1/09
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Response Marine, Inc.

Newburyport, MA, www.responsemarine.com

SHEET
DWG NO. 345-F-1

REV. DESCRIPTION



FRAME 5		
FLORENCE 22'4" x 8'		
SCALE 1" = 1'	DES/DWN WAL	DATE 12/1/09
Response Marine, Inc. Newburyport, MA, www.responsemarine.com		SHEET DWG NO. 345-F-5

REV.	DESCRIPTION