

DRS MARINE INC.

COMMERCIAL DIVERS
DAMS, POWERHOUSES
U/W PILE REPAIRS
U/W BURNING & WELDING
ROVS



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COMPLETE DIVING SERVICES

EUREKA DRY DOCK
ULTRASONIC THICKNESS INSPECTION
PREPARED FOR

BAE SYSTEMS
SAN FRANCISCO

December, 2016



DRS MARINE INC.

COMPLETE DIVING SERVICES

drsmarine@aol.com

525 Chestnut Street

Vallejo, CA 94590

PH 707/648-3483

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December 30, 2016

BAE SYSTEMS

ATTN: Justin Gleaton

RE: Dry dock 2 ULTRA SONIC Thickness Gauging

Project site: EUREKA Dry Dock
Date of work: 12/27/16 - 12/29/16
Inspection Site: Pier 80 San Francisco Ca.

INTRODUCTION

DRS marine was contracted to conduct an ultra sonic thickness testing on EUREKA Dry Dock. An inspection and cleaning of the intake/discharge screens will also be completed and details provided to BAE along with pictures in a written report. Underwater readings will be conducted by a 3 man dive team. A man lift will be provided by BAE to allow DRS Marine to reach the areas needed to take readings above the waterline along the inside and outside of the wing walls.

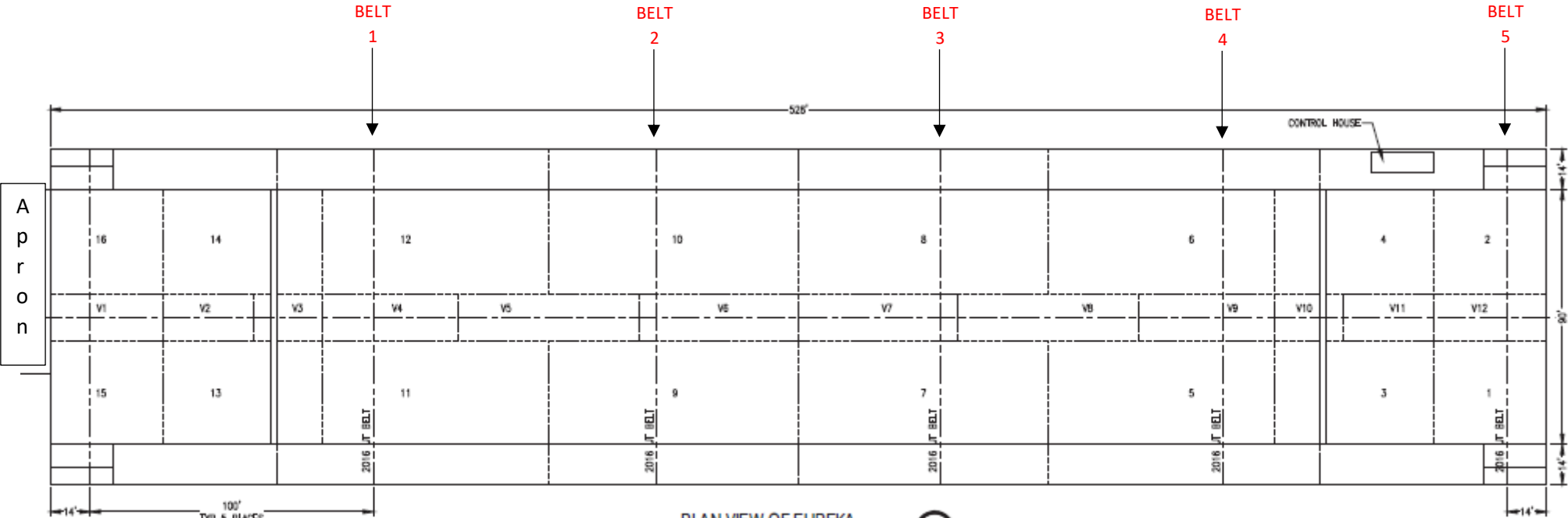
UT GRID PATTERN

The testing would be done along five belts around the dry dock. See **Drawing A** on next page. The test hits are to be taken every 5 feet along each belt. Testing will also be conducted along the Apron at designated locations that are to be provided by BAE.

METHOD

For readings that were needed to be taken underwater, DRS marine used a three man dive crew with surface supplied air diving equipment and a low-pressure diving compressor. The dive crew used a CYGNUS 3 Ultrasonic thickness gauge that was checked for calibration every morning and at mid-day.

EUREKA DRYDOCK



PLAN VIEW OF EUREKA
SCALE: 1" = 20'-0"

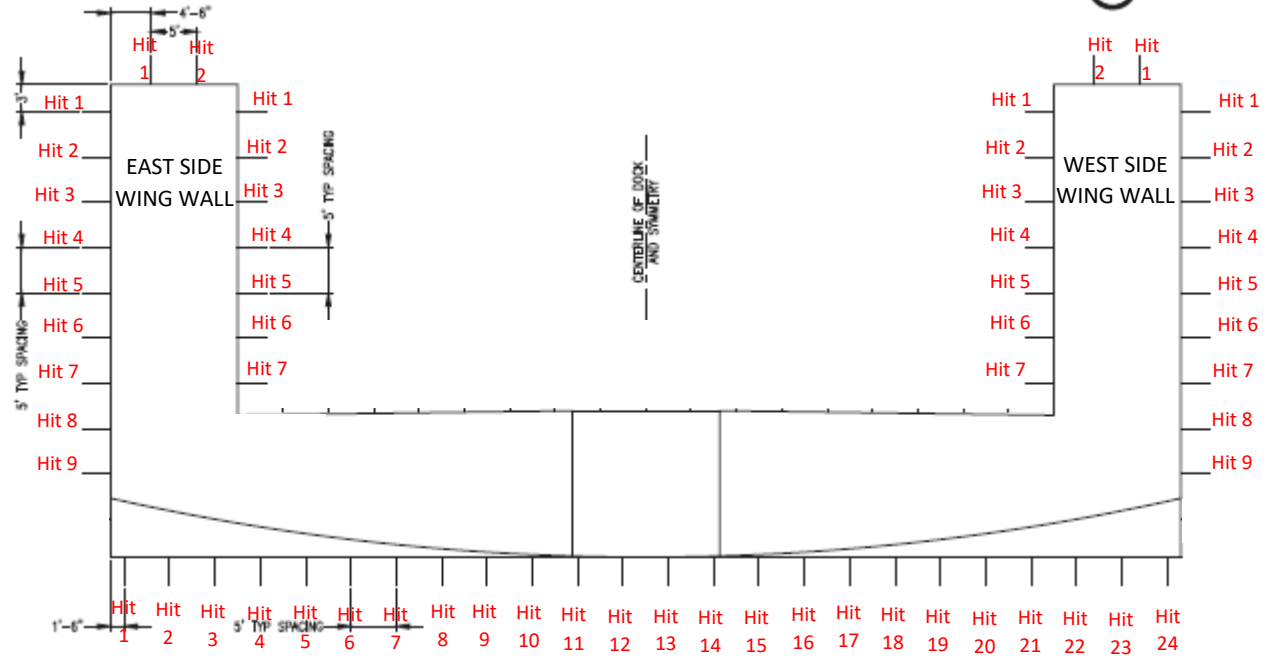


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1.0 TESTING ALONG THE 5 BELTS

East Wingwall Top Deck

Hit 1 is 4' 5" from outside edge of wall

LOCATION		ORIGINAL THICKNESS	PRESENT THICKNESS	CHANGE	CHANGE PERCENTAGE
BELT 1	1	0.437	0.407	0.030	0.07
	2	0.437	0.394	0.043	0.10
BELT 2	1	0.437	0.380	0.057	0.13
	2	0.437	0.375	0.062	0.14
BELT 3	1	0.437	0.364	0.073	0.17
	2	0.437	0.446	-0.009	-0.02
BELT 4	1	0.437	0.387	0.050	0.11
	2	0.437	0.371	0.066	0.15
BELT 5	1	0.437	0.446	-0.009	-0.02
	2	0.437	0.450	-0.013	-0.03

East Outside Wingwall

Hit 1 is 3' down from top of wing wall

LOCATION		ORIGINAL THICKNESS	PRESENT THICKNESS	CHANGE	CHANGE PERCENTAGE
BELT 1	1	0.375	0.392	-0.017	-0.05
	2	0.375	0.396	-0.021	-0.06
	3	0.375	0.360	0.015	0.04
	4	0.375	0.328	0.047	0.13
	5	0.375	0.302	0.073	0.19
	6	0.375	0.306	0.069	0.18
	7	0.375	0.344	0.031	0.08
	8	0.437	0.500	-0.063	-0.14
	9	0.437	0.502	-0.065	-0.15
BELT 2	1	0.375	0.396	-0.021	-0.06
	2	0.375	0.382	-0.007	-0.02
	3	0.375	0.360	0.015	0.04
	4	0.375	0.366	0.009	0.02
	5	0.375	0.358	0.017	0.05
	6	0.375	0.352	0.023	0.06
	7	0.375	0.456	-0.081	-0.22
	8	0.437	0.498	-0.061	-0.14
	9	0.437	0.501	-0.064	-0.15
BELT 3	1	0.375	0.372	0.003	0.01
	2	0.375	0.366	0.009	0.02
	3	0.375	0.366	0.009	0.02
	4	0.375	0.370	0.005	0.01
	5	0.375	0.354	0.021	0.06
	6	0.375	0.348	0.027	0.07
	7	0.375	0.444	-0.069	-0.18
	8	0.437	0.452	-0.015	-0.03
	9	0.437	0.468	-0.031	-0.07

East Outside Wingwall ...Continued

Hit 1 is 3' down from top of wing wall

LOCATION		ORIGINAL THICKNESS	PRESENT THICKNESS	CHANGE	CHANGE PERCENTAGE
BELT 4	1	0.375	0.394	-0.019	-0.05
	2	0.375	0.352	0.023	0.06
	3	0.375	0.370	0.005	0.01
	4	0.375	0.380	-0.005	-0.01
	5	0.375	0.356	0.019	0.05
	6	0.375	0.360	0.015	0.04
	7	0.375	0.464	-0.089	-0.24
	8	0.437	0.498	-0.061	-0.14
	9	0.437	0.444	-0.007	-0.02
BELT 5	1	0.375	0.402	-0.027	-0.07
	2	0.375	0.364	0.011	0.03
	3	0.375	0.344	0.031	0.08
	4	0.375	0.366	0.009	0.02
	5	0.375	0.370	0.005	0.01
	6	0.375	0.380	-0.005	-0.01
	7	0.375	0.362	0.013	0.03
	8	0.437	0.446	-0.009	-0.02
	9	0.437	0.424	0.013	0.03

Bottom of dry dock

Hit 1 is 1' 6" from the east side

LOCATION		ORIGINAL THICKNESS	PRESENT THICKNESS	CHANGE	CHANGE PERCENTAGE
BELT 1	1	0.437	0.428	0.009	0.02
	2	0.437	0.416	0.021	0.05
	3	0.437	0.416	0.021	0.05
	4	0.437	0.382	0.055	0.13
	5	0.437	0.348	0.089	0.20
	6	0.437	0.400	0.037	0.08
	7	0.437	0.396	0.041	0.09
	8	0.437	0.380	0.057	0.13
	9	0.437	0.370	0.067	0.15
	10	0.437	0.364	0.073	0.17
	11	0.437	0.366	0.071	0.16
	12	0.437	0.394	0.043	0.10
	13	0.437	0.330	0.107	0.24
	14	0.437	0.354	0.083	0.19
	15	0.437	0.318	0.119	0.27
	16	0.437	0.482	-0.045	-0.10
	17	0.437	0.486	-0.049	-0.11
	18	0.437	0.470	-0.033	-0.08
	19	0.437	0.448	-0.011	-0.03
	20	0.437	0.502	-0.065	-0.15
	21	0.437	0.412	0.025	0.06
	22	0.437	0.414	0.023	0.05
	23	0.437	0.438	-0.001	0.00
	24	0.437	0.426	0.011	0.03

Bottom of dry dock.....continued

Hit 1 is 1' 6" from the east side

LOCATION		ORIGINAL THICKNESS	PRESENT THICKNESS	CHANGE	CHANGE PERCENTAGE
BELT 2	1	0.437	0.422	0.015	0.03
	2	0.437	0.420	0.017	0.04
	3	0.437	0.412	0.025	0.06
	4	0.437	0.402	0.035	0.08
	5	0.437	0.416	0.021	0.05
	6	0.437	0.412	0.025	0.06
	7	0.437	0.418	0.019	0.04
	8	0.437	0.328	0.109	0.25
	9	0.437	0.358	0.079	0.18
	10	0.437	0.338	0.099	0.23
	11	0.437	0.404	0.033	0.08
	12	0.437	0.424	0.013	0.03
	13	0.437	0.398	0.039	0.09
	14	0.437	0.394	0.043	0.10
	15	0.437	0.380	0.057	0.13
	16	0.437	0.436	0.001	0.00
	17	0.437	0.380	0.057	0.13
	18	0.437	0.330	0.107	0.24
	19	0.437	0.426	0.011	0.03
	20	0.437	0.386	0.051	0.12
	21	0.437	0.496	-0.059	-0.14
	22	0.437	0.498	-0.061	-0.14
	23	0.437	0.388	0.049	0.11
	24	0.437	0.348	0.089	0.20
BELT 3	1	0.437	0.438	-0.001	0.00
	2	0.437	0.402	0.035	0.08
	3	0.437	0.412	0.025	0.06
	4	0.437	0.336	0.101	0.23
	5	0.437	0.384	0.053	0.12
	6	0.437	0.374	0.063	0.14
	7	0.437	0.374	0.063	0.14
	8	0.437	0.372	0.065	0.15
	9	0.437	0.396	0.041	0.09
	10	0.437	0.426	0.011	0.03
	11	0.437	0.386	0.051	0.12
	12	0.437	0.420	0.017	0.04
	13	0.437	0.382	0.055	0.13
	14	0.437	0.342	0.095	0.22
	15	0.437	0.410	0.027	0.06
	16	0.437	0.382	0.055	0.13
	17	0.437	0.410	0.027	0.06
	18	0.437	0.418	0.019	0.04
	19	0.437	0.408	0.029	0.07
	20	0.437	0.414	0.023	0.05
	21	0.437	0.480	-0.043	-0.10
	22	0.437	0.480	-0.043	-0.10
	23	0.437	0.482	-0.045	-0.10
	24	0.437	0.416	0.021	0.05

Bottom of dry dock.....continued

Hit 1 is 1' 6" from the east side

LOCATION		ORIGINAL THICKNESS	PRESENT THICKNESS	CHANGE	CHANGE PERCENTAGE
BELT 4	1	0.437	0.498	-0.061	-0.14
	2	0.437	0.478	-0.041	-0.09
	3	0.437	0.466	-0.029	-0.07
	4	0.437	0.386	0.051	0.12
	5	0.437	0.336	0.101	0.23
	6	0.437	0.374	0.063	0.14
	7	0.437	0.436	0.001	0.00
	8	0.437	0.398	0.039	0.09
	9	0.437	0.396	0.041	0.09
	10	0.437	0.366	0.071	0.16
	11	0.437	0.388	0.049	0.11
	12	0.437	0.440	-0.003	-0.01
	13	0.437	0.396	0.041	0.09
	14	0.437	0.302	0.135	0.31
	15	0.437	0.328	0.109	0.25
	16	0.437	0.346	0.091	0.21
	17	0.437	0.422	0.015	0.03
	18	0.437	0.502	-0.065	-0.15
	19	0.437	0.398	0.039	0.09
	20	0.437	0.354	0.083	0.19
	21	0.437	0.392	0.045	0.10
	22	0.437	0.490	-0.053	-0.12
	23	0.437	0.492	-0.055	-0.13
	24	0.437	0.404	0.033	0.08
BELT 5	1	0.437	0.314	0.123	0.28
	2	0.437	0.370	0.067	0.15
	3	0.437	0.374	0.063	0.14
	4	0.437	0.370	0.067	0.15
	5	0.437	0.312	0.125	0.29
	6	0.437	0.340	0.097	0.22
	7	0.437	0.382	0.055	0.13
	8	0.437	0.412	0.025	0.06
	9	0.437	0.326	0.111	0.25
	10	0.437	0.384	0.053	0.12
	11	0.437	0.328	0.109	0.25
	12	0.437	0.302	0.135	0.31
	13	0.437	0.326	0.111	0.25
	14	0.437	0.412	0.025	0.06
	15	0.437	0.352	0.085	0.19
	16	0.437	0.310	0.127	0.29
	17	0.437	0.368	0.069	0.16
	18	0.437	0.330	0.107	0.24
	19	0.437	0.390	0.047	0.11
	20	0.437	0.372	0.065	0.15
	21	0.437	0.436	0.001	0.00
	22	0.437	0.442	-0.005	-0.01
	23	0.437	0.442	-0.005	-0.01
	24	0.437	0.448	-0.011	-0.03

West Wingwall Top Deck

Hit 1 is 4' 5" from outside edge of wall

LOCATION		ORIGINAL THICKNESS	PRESENT THICKNESS	CHANGE	CHANGE PERCENTAGE
BELT 1	1	0.437	0.504	-0.067	-0.15
	2	0.437	0.235	0.202	0.46
BELT 2	1	0.437	0.488	-0.051	-0.12
	2	0.437	0.343	0.094	0.22
BELT 3	1	0.437	0.366	0.071	0.16
	2	0.437	0.448	-0.011	-0.03
BELT 4	1	0.437	0.478	-0.041	-0.09
	2	0.437	0.434	0.003	0.01
BELT 5	1	0.437	0.455	-0.018	-0.04
	2	0.437	0.438	-0.001	0.00

West Outside Wingwall

Hit 1 is 3' down from top of wing wall

LOCATION		ORIGINAL THICKNESS	PRESENT THICKNESS	CHANGE	CHANGE PERCENTAGE
BELT 1	1	0.375	0.385	-0.010	-0.03
	2	0.375	0.385	-0.010	-0.03
	3	0.375	0.345	0.030	0.08
	4	0.375	0.340	0.035	0.09
	5	0.375	0.305	0.070	0.19
	6	0.375	0.495	-0.120	-0.32
	7	0.375	0.505	-0.130	-0.35
	8	0.437	0.505	-0.068	-0.16
	9	0.437	0.466	-0.029	-0.07
BELT 2	1	0.375	0.380	-0.005	-0.01
	2	0.375	0.375	0.000	0.00
	3	0.375	0.335	0.040	0.11
	4	0.375	0.320	0.055	0.15
	5	0.375	0.285	0.090	0.24
	6	0.375	0.350	0.025	0.07
	7	0.375	0.428	-0.053	-0.14
	8	0.437	0.568	-0.131	-0.30
	9	0.437	0.530	-0.093	-0.21
BELT 3	1	0.375	0.375	0.000	0.00
	2	0.375	0.365	0.010	0.03
	3	0.375	0.370	0.005	0.01
	4	0.375	0.375	0.000	0.00
	5	0.375	0.315	0.060	0.16
	6	0.375	0.330	0.045	0.12
	7	0.375	0.543	-0.168	-0.45
	8	0.437	0.576	-0.139	-0.32
	9	0.437	0.520	-0.083	-0.19

West Outside Wingwall ...Continued

Hit 1 is 3' down from top of wing wall

LOCATION		ORIGINAL THICKNESS	PRESENT THICKNESS	CHANGE	CHANGE PERCENTAGE
BELT 4	1	0.375	0.380	-0.005	-0.01
	2	0.375	0.395	-0.020	-0.05
	3	0.375	0.375	0.000	0.00
	4	0.375	0.350	0.025	0.07
	5	0.375	0.335	0.040	0.11
	6	0.375	0.315	0.060	0.16
	7	0.375	0.555	-0.180	-0.48
	8	0.437	0.533	-0.096	-0.22
	9	0.437	0.483	-0.046	-0.11
BELT 5	1	0.375	0.390	-0.015	-0.04
	2	0.375	0.360	0.015	0.04
	3	0.375	0.370	0.005	0.01
	4	0.375	0.390	-0.015	-0.04
	5	0.375	0.370	0.005	0.01
	6	0.375	0.360	0.015	0.04
	7	0.375	0.597	-0.222	-0.59
	8	0.437	0.576	-0.139	-0.32
	9	0.437	0.584	-0.147	-0.34

West Inside Wingwall

Hit 1 is 3' down from top of wing wall

LOCATION		ORIGINAL THICKNESS	PRESENT THICKNESS	CHANGE	CHANGE PERCENTAGE
BELT 1	1	0.375	0.440	-0.065	-0.17
	2	0.375	0.434	-0.059	-0.16
	3	0.375	0.393	-0.018	-0.05
	4	0.375	0.424	-0.049	-0.13
	5	0.375	0.410	-0.035	-0.09
	6	0.375	0.421	-0.046	-0.12
	7	0.375	0.410	-0.035	-0.09
BELT 2	1	0.375	0.452	-0.077	-0.21
	2	0.375	0.457	-0.082	-0.22
	3	0.375	0.403	-0.028	-0.07
	4	0.375	0.480	-0.105	-0.28
	5	0.375	0.449	-0.074	-0.20
	6	0.375	0.425	-0.050	-0.13
	7	0.375	0.420	-0.045	-0.12
BELT 3	1	0.375	0.406	-0.031	-0.08
	2	0.375	0.420	-0.045	-0.12
	3	0.375	0.377	-0.002	-0.01
	4	0.375	0.442	-0.067	-0.18
	5	0.375	0.406	-0.031	-0.08
	6	0.375	0.414	-0.039	-0.10
	7	0.375	0.407	-0.032	-0.09

West Inside Wingwall ...Continued

Hit 1 is 3' down from top of wing wall

LOCATION		ORIGINAL THICKNESS	PRESENT THICKNESS	CHANGE	CHANGE PERCENTAGE
BELT 4	1	0.375	0.400	-0.025	-0.07
	2	0.375	0.434	-0.059	-0.16
	3	0.375	0.433	-0.058	-0.15
	4	0.375	0.426	-0.051	-0.14
	5	0.375	0.383	-0.008	-0.02
	6	0.375	0.372	0.003	0.01
	7	0.375	0.415	-0.040	-0.11
BELT 5	1	0.375	0.433	-0.058	-0.15
	2	0.375	0.461	-0.086	-0.23
	3	0.375	0.436	-0.061	-0.16
	4	0.375	0.430	-0.055	-0.15
	5	0.375	0.445	-0.070	-0.19
	6	0.375	0.438	-0.063	-0.17
	7	0.375	0.420	-0.045	-0.12

East Inside Wingwall

Hit 1 is 3' down from top of wing wall

LOCATION		ORIGINAL THICKNESS	PRESENT THICKNESS	CHANGE	CHANGE PERCENTAGE
BELT 1	1	0.375	0.485	-0.110	-0.29
	2	0.375	0.446	-0.071	-0.19
	3	0.375	0.363	0.012	0.03
	4	0.375	0.420	-0.045	-0.12
	5	0.375	0.385	-0.010	-0.03
	6	0.375	0.368	0.007	0.02
	7	0.375	0.454	-0.079	-0.21
BELT 2	1	0.375	0.450	-0.075	-0.20
	2	0.375	0.444	-0.069	-0.18
	3	0.375	0.361	0.014	0.04
	4	0.375	0.461	-0.086	-0.23
	5	0.375	0.313	0.062	0.17
	6	0.375	0.441	-0.066	-0.18
	7	0.375	0.422	-0.047	-0.13
BELT 3	1	0.375	0.462	-0.087	-0.23
	2	0.375	0.430	-0.055	-0.15
	3	0.375	0.327	0.048	0.13
	4	0.375	0.461	-0.086	-0.23
	5	0.375	0.432	-0.057	-0.15
	6	0.375	0.427	-0.052	-0.14
	7	0.375	0.348	0.027	0.07
BELT 4	1	0.375	0.464	-0.089	-0.24
	2	0.375	0.434	-0.059	-0.16
	3	0.375	0.448	-0.073	-0.19
	4	0.375	0.455	-0.080	-0.21
	5	0.375	0.420	-0.045	-0.12
	6	0.375	0.445	-0.070	-0.19
	7	0.375	0.454	-0.079	-0.21
BELT 5	1	0.375	0.422	-0.047	-0.13
	2	0.375	0.444	-0.069	-0.18
	3	0.375	0.455	-0.080	-0.21
	4	0.375	0.482	-0.107	-0.29
	5	0.375	0.451	-0.076	-0.20
	6	0.375	0.445	-0.070	-0.19
	7	0.375	0.420	-0.045	-0.12

2.0 TESTING ON THE APRON

All testing locations for thickness were provided by BAE. Original thickness was not provided.

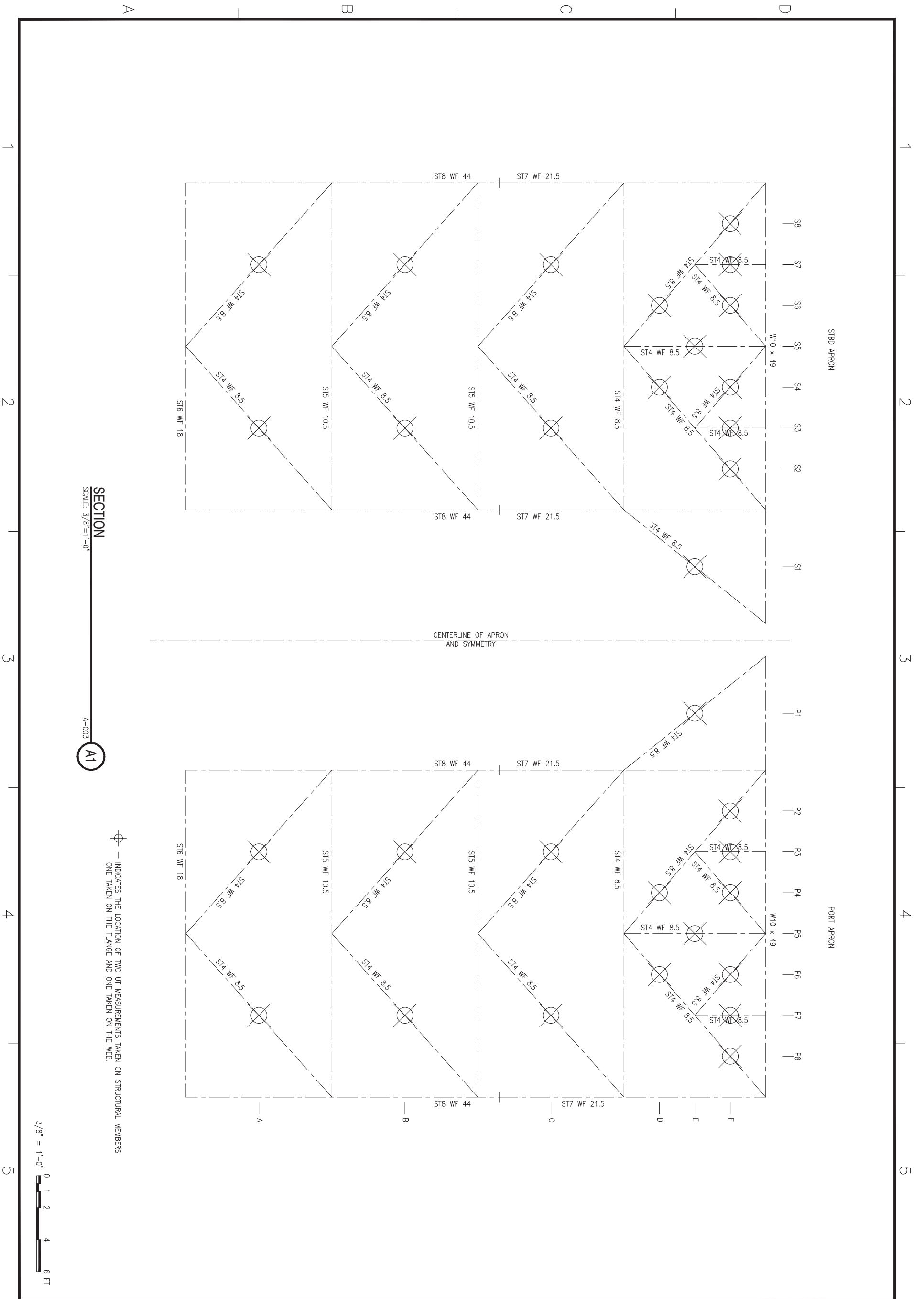
APRON DECK

				UT
S	3	A	Web	0.542
S	3	B	Flange	0.485
S	3	C	Web	0.531
S	3	D	Flange	0.517
S	2	A	Web	0.497
S	2	B	Flange	0.217
S	2	C	Web	0.502
S	2	D	Flange	0.551
S	1	A	Web	0.505
S	1	B	Flange	0.568
S	1	C	Web	0.596
S	1	D	Flange	0.587
C	L	A	Web	0.385
C	L	B	Flange	0.389
C	L	C	Web	0.289
C	L	D	Flange	0.336

SEE A1 on Sheet A-005

				UT
P	1	A	Web	0.55
P	1	B	Flange	0.545
P	1	C	Web	0.592
P	1	D	Flange	0.581
P	2	A	Web	0.553
P	2	B	Flange	0.502
P	2	C	Web	0.494
P	2	D	Flange	0.49
P	3	A	Web	0.529
P	3	B	Flange	0.543
P	3	C	Web	0.552
P	3	D	Flange	0.427

SEE A1 on Sheet A-005



SECTION
SCALE: 3/8"=1'-0"
A-003
A1

⊕ — INDICATES THE LOCATION OF TWO UT MEASUREMENTS TAKEN ON STRUCTURAL MEMBERS ONE TAKEN ON THE FLANGE AND ONE TAKEN ON THE WEB.

3/8" = 1'-0"
0 1 2 4 6 FT

SHEET 6 OF 7 A-005	THESE DESIGNS AND SPECIFICATIONS ARE NOW AND DO REMAIN THE PROPERTY OF HEGER DRY DOCK, INC. USE OF THESE DESIGNS OR REPRODUCTION OF THESE DESIGNS WITHOUT OUR EXPRESS WRITTEN PERMISSION IS PROHIBITED.	DATE: 11/16/2016 CHK: ALB DRN: WLN CHG: WLN WALED: WLN	HEGER DRY DOCK ENGINEERS DRY DOCK ENGINEERS DESIGN, INSPECTION AND CERTIFICATION 531 CONCORD STREET FOLDSBORO, VT 05748 (802) 426-1800	SYM	DESCRIPTION	DATE	APPR
	CLIENT NAME AND ADDRESS: BAE SYSTEMS SAN FRANCISCO, CA.	PROJECT TITLE: COMMERCIAL INSPECTION OF EUREKA FDD (EX AFDM 14) ORIGINAL EUREKA APRON STRUCTURE 3 OF 3		PROJECT NO.: 3978-D DRAWING TITLE:	SYM	DESCRIPTION	DATE

3.0 TESTING LONG TRUSS (locations provided by BAE)

STBD - OUTOARD - MAIN TRUSS

	UT
A 1 Web	0.412
A 1 Flange	0.462
A 2 Web	0.36
A 2 Flange	0.517
A 3 Web	0.575
A 3 Flange	0.876
B 1 Web	0.356
B 1 Flange	0.496
B 2 Web	0.403
B 2 Flange	0.589
B 3 Web	0.547
B 3 Flange	0.859
C 1 Web	0.359
C 1 Flange	0.485
C 2 Web	0.363
C 2 Flange	0.471
C 3 Web	0.377
C 3 Flange	0.58
D 1 Web	0.344
D 1 Flange	0.477
D 2 Web	0.345
D 2 Flange	0.576

SEE A5 on Sheet A-003

STBD - INBOARD - MAIN TRUSS

	UT
A 1 Web	0.4
A 1 Flange	0.5
A 2 Web	0.4
A 2 Flange	0.5
A 3 Web	0.6
A 3 Flange	0.4
B 1 Web	0.3
B 1 Flange	0.3
B 2 Web	0.3
B 2 Flange	0.4
B 3 Web	0.6
B 3 Flange	0.9
C 1 Web	0.3
C 1 Flange	0.4
C 2 Web	0.3
C 2 Flange	0.4
C 3 Web	0.3
C 3 Flange	0.6
D 1 Web	0.4
D 1 Flange	0.4
D 2 Web	0.3
D 2 Flange	0.6

SEE A5 on Sheet A-003

STBD - INBOARD - W10x21

	UT
A Web	0.285
A Flange	0.359
B Web	0.308
B Flange	0.36
C Web	0.378
C Flange	0.298
D Web	0.305
D Flange	0.325

SEE B1 on Sheet A-003

STBD - FWD - W10x49

	UT
S2 Web	0.311
S2 Flange	0.205
S1 Web	0.316
S1 Flange	0.387

SEE B1 on Sheet A-003

PORT - INBOARD - W10x21

	UT
A Web	0.317
Flange	0.377
B Web	0.32
Flange	0.377
C Web	0.316
Flange	0.401
D Web	0.317
D Flange	0.297

SEE B1 on Sheet A-003

PORT - FWD - W10x49

	UT
P1 Web	0.335
Flange	0.163
P2 Web	0.333
Flange	0.347
P2 Web	
Flange	

SEE B1 on Sheet A-003

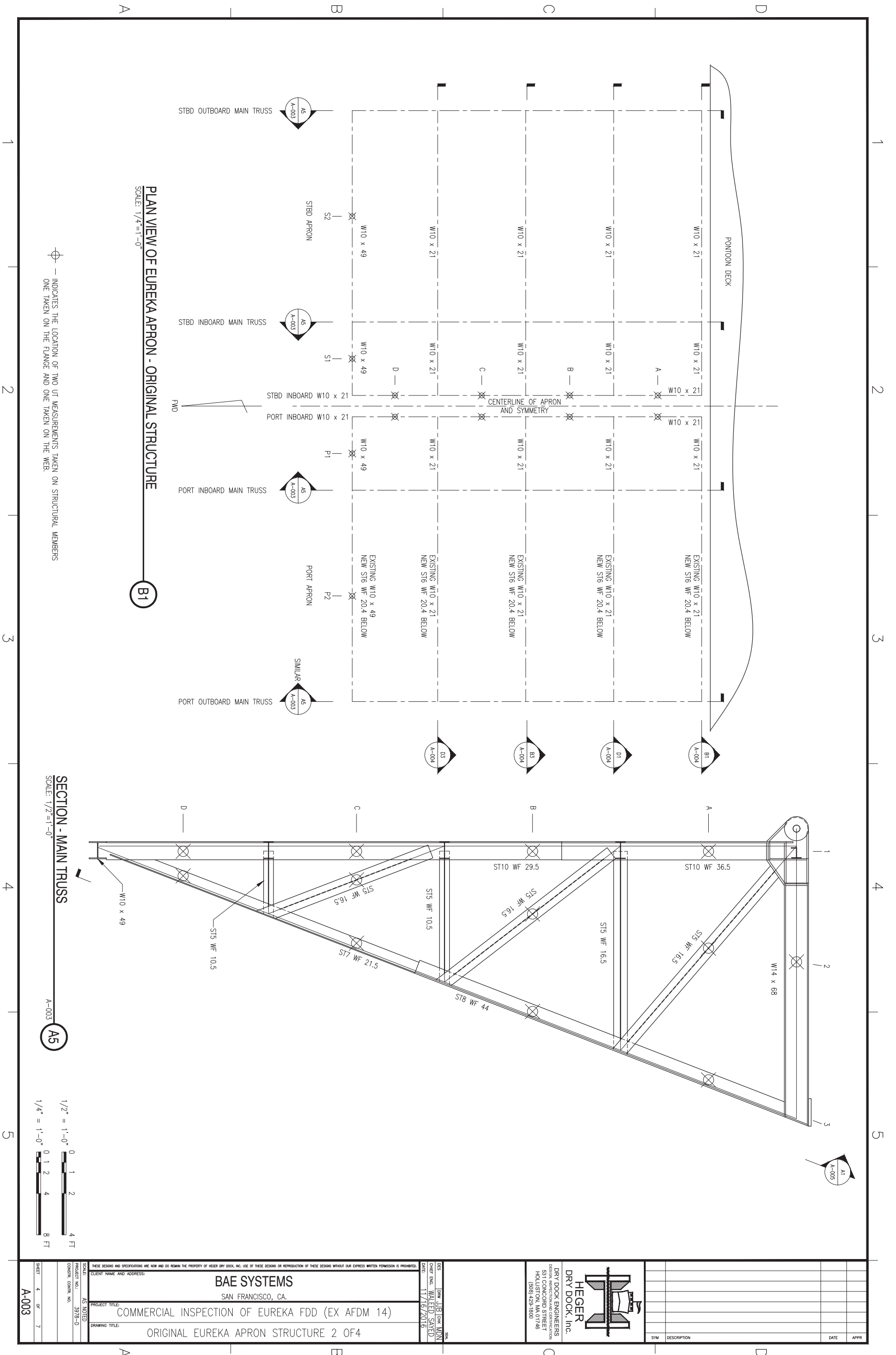
PORT - INBOARD - MAIN TRUSS

	UT
A 1 Web	0.387
A 1 Flange	0.461
A 2 Web	0.281
A 2 Flange	0.479
A 3 Web	0.623
A 3 Flange	0.875
B 1 Web	0.325
B 1 Flange	0.283
B 2 Web	0.279
B 2 Flange	0.466
B 3 Web	0.563
B 3 Flange	0.89
C 1 Web	0.351
C 1 Flange	0.323
C 2 Web	0.344
C 2 Flange	0.463
C 3 Web	0.378
C 3 Flange	0.582
D 1 Web	0.334
D 1 Flange	0.296
D 2 Web	0.375
D 2 Flange	0.553

PORT - OUTBOARD - MAIN TRUSS

	UT
A 1 Web	0.388
A 1 Flange	0.447
A 2 Web	0.357
A 2 Flange	0.506
A 3 Web	0.604
A 3 Flange	0.852
B 1 Web	0.339
B 1 Flange	0.25
B 2 Web	0.294
B 2 Flange	0.464
B 3 Web	0.56
B 3 Flange	0.881
C 1 Web	0.291
C 1 Flange	0.307
C 2 Web	0.296
C 2 Flange	0.465
C 3 Web	0.368
C 3 Flange	0.617
D 1 Web	0.346
D 1 Flange	0.377
D 2 Web	0.371
D 2 Flange	0.595

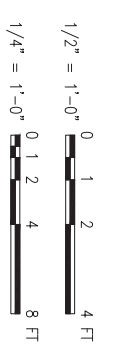
SEE A5 on Sheet A-003



PLAN VIEW OF EUREKA APRON - ORIGINAL STRUCTURE
SCALE: 1/4"=1'-0"

⊕ — INDICATES THE LOCATION OF TWO UT MEASUREMENTS TAKEN ON STRUCTURAL MEMBERS
ONE TAKEN ON THE FLANGE AND ONE TAKEN ON THE WEB.

SECTION - MAIN TRUSS
SCALE: 1/2"=1'-0"



SHEET 4 OF 7 A-003	THESE DESIGNS AND SPECIFICATIONS ARE NOW AND DO REMAIN THE PROPERTY OF HEGER DRY DOCK, INC. USE OF THESE DESIGNS OR REPRODUCTION OF THESE DESIGNS WITHOUT OUR EXPRESS WRITTEN PERMISSION IS PROHIBITED. PROJECT TITLE: COMMERCIAL INSPECTION OF EUREKA FDD (EX AFDM 14) DRAWING TITLE: ORIGINAL EUREKA APRON STRUCTURE 2 OF 4	DATE: 11/16/2016 CHECKED: WJL DESIGNED: WJL DRAWN: WJL	HEGER DRY DOCK ENGINEERS DRY DOCK ENGINEERS DESIGN INSPECTION AND CERTIFICATION 531 CONCORD STREET CONCORD, CA 94520 (925) 426-1800	CLIENT NAME AND ADDRESS: BAE SYSTEMS SAN FRANCISCO, CA.	PROJECT NO.: 3978-D CONTRACTOR NO.:	SCALE: AS NOTED PROJECT NO.: 3978-D CONTRACTOR NO.:	DATE APPR	SYM DESCRIPTION
	BAE SYSTEMS SAN FRANCISCO, CA.							

1st Transverse Truss

				UT
S	6	C	Web	0.483
S	6	C	Flange	0.742
S	5	A	Web	0.314
S	5	A	Flange	0.304
S	5	C	Web	0.314
S	5	C	Flange	0.58
S	5	D	Web	0.386
S	5	D	Flange	0.423
S	4	C	Web	0.338
S	4	C	Flange	0.526
S	3	A	Web	0.311
S	3	A	Flange	0.325
S	3	C	Web	0.362
S	3	C	Flange	0.526
S	3	D	Web	0.364
S	3	D	Flange	0.401
S	2	C	Web	0.486
S	2	C	Flange	0.723
S	1	A	Web	0.319
S	1	A	Flange	0.261
S	1	C	Web	0.31
S	1	C	Flange	0.471

SEE B1 on Sheet A-004

				UT
P	1	A	Web	0.334
P	1	A	Flange	0.255
P	1	C	Web	0.393
P	1	C	Flange	0.637
P	2	C	Web	0.505
P	2	C	Flange	0.806
P	3	A	Web	0.325
P	3	A	Flange	0.231
P	3	B	Web	0.247
P	3	B	Flange	0.54
P	3	C	Web	0.391
P	3	C	Flange	0.583
P	3	D	Web	0.337
P	3	D	Flange	0.414
P	4	C	Web	0.379
P	4	C	Flange	0.566
P	5	A	Web	0.306
P	5	A	Flange	0.388
P	5	B	Web	0.32
P	5	B	Flange	0.526
P	5	C	Web	0.42
P	5	C	Flange	0.693
P	5	D	Web	0.354
P	5	D	Flange	0.436
P	6	C	Web	0.507
P	6	C	Flange	0.797

SEE B1 on Sheet A-004

2nd Transverse Truss

				UT
S	6	C	Web	0.285
S	6	C	Flange	0.52
S	5	A	Web	0.318
S	5	A	Flange	0.138
S	5	C	Web	0.209
S	5	C	Flange	0.353
S	5	D	Web	0.376
S	5	D	Flange	0.404
S	4	C	Web	0.233
S	4	C	Flange	0.366
S	3	A	Web	0.305
S	3	A	Flange	0.263
S	3	C	Web	0.29
S	3	C	Flange	0.375
S	3	D	Web	0.365
S	3	D	Flange	0.402
S	2	C	Web	0.377
S	2	C	Flange	0.604
S	1	A	Web	0.33
S	1	A	Flange	0.359
S	1	C	Web	0.262
S	1	C	Flange	0.321

SEE D1 on Sheet A-004

				UT
P	1	A	Web	0.315
P	1	A	Flange	0.319
P	1	C	Web	0.304
P	1	C	Flange	0.457
P	2	C	Web	0.356
P	2	C	Flange	0.504
P	3	A	Web	0.321
P	3	A	Flange	0.408
P	3	B	Web	0.133
P	3	B	Flange	0.55
P	3	C	Web	0.204
P	3	C	Flange	0.37
P	3	D	Web	0.335
P	3	D	Flange	0.391
P	4	C	Web	0.301
P	4	C	Flange	0.369
P	5	A	Web	0.33
P	5	A	Flange	0.358
P	5	B	Web	0.37
P	5	B	Flange	0.51
P	5	C	Web	0.328
P	5	C	Flange	0.328
P	5	D	Web	0.354
P	5	D	Flange	0.421
P	6	C	Web	0.339
P	6	C	Flange	0.585

SEE D1 on Sheet A-004

3rd Transverse Truss

				UT
S	6	C	Web	0.353
S	6	C	Flange	0.613
S	5	A	Web	0.317
S	5	A	Flange	0.237
S	5	C	Web	0.28
S	5	C	Flange	0.381
S	5	D	Web	0.278
S	5	D	Flange	0.325
S	4	C	Web	0.27
S	4	C	Flange	0.439
S	3	A	Web	0.314
S	3	A	Flange	0.162
S	3	C	Web	0.295
S	3	C	Flange	0.352
S	3	D	Web	0.294
S	3	D	Flange	0.358
S	2	C	Web	0.313
S	2	C	Flange	0.46
S	1	A	Web	0.306
S	1	A	Flange	0.221
S	1	C	Web	0.276
S	1	C	Flange	0.379

SEE B3 on Sheet A-004

				UT
P	1	A	Web	0.334
P	1	A	Flange	0.152
P	1	C	Web	0.302
P	1	C	Flange	0.394
P	2	C	Web	0.363
P	2	C	Flange	0.469
P	3	A	Web	0.341
P	3	A	Flange	0.207
P	3	B	Web	0.385
P	3	B	Flange	0.52
P	3	C	Web	0.355
P	3	C	Flange	0.381
P	3	D	Web	0.245
P	3	D	Flange	0.38
P	4	C	Web	0.331
P	4	C	Flange	0.414
P	5	A	Web	0.355
P	5	A	Flange	0.311
P	5	B	Web	0.339
P	5	B	Flange	0.461
P	5	C	Web	0.23
P	5	C	Flange	0.37
P	5	D	Web	0.252
P	5	D	Flange	0.378
P	6	C	Web	0.359
P	6	C	Flange	0.49

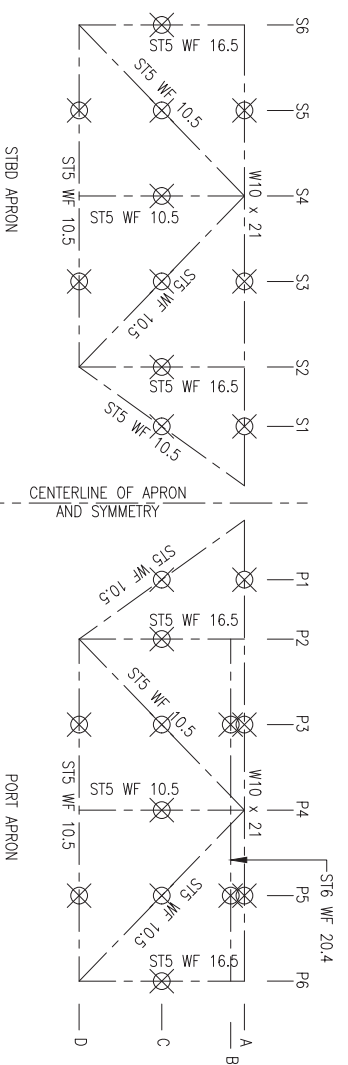
SEE B3 on Sheet A-004

4th Transverse Truss

				UT
S	6	C	Web	0.33
S	6	C	Flange	0.297
S	5.5	C	Web	0.29
S	5.5	C	Flange	0.335
S	5.5	D	Web	0.282
S	5.5	D	Flange	0.328
S	5	A	Web	0.327
S	5	A	Flange	0.342
S	4.5	C	Web	0.286
S	4.5	C	Flange	0.326
S	4	D	Web	0.342
S	4	D	Flange	0.297
S	3.5	C	Web	0.264
S	3.5	C	Flange	0.354
S	3	A	Web	0.311
S	3	A	Flange	0.385
S	2.5	C	Web	0.293
S	2.5	C	Flange	0.333
S	2.5	D	Web	0.323
S	2.5	D	Flange	0.355
S	2	C	Web	0.356
S	2	C	Flange	0.525
S	1	A	Web	0.301
S	1	A	Flange	0.235
S	1	C	Web	0.298
S	1	C	Flange	0.351

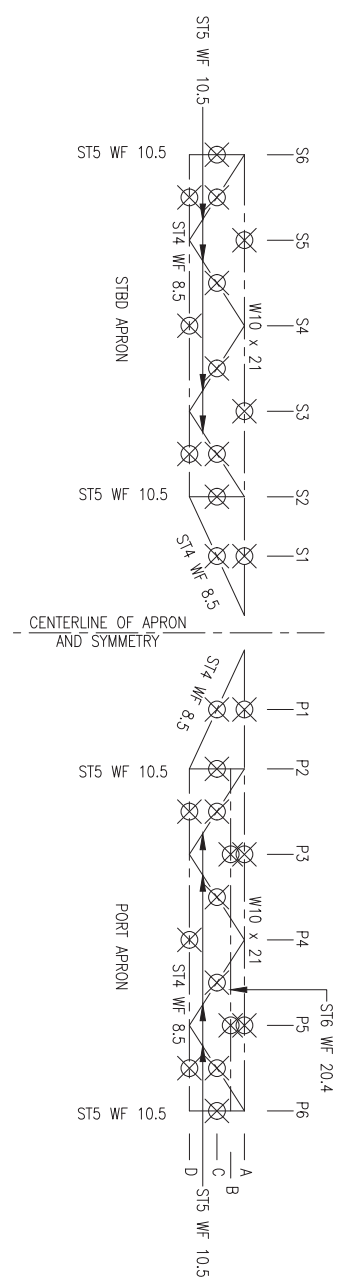
				UT
P	1	A	Web	0.338
P	1	A	Flange	0.356
P	1	C	Web	0.23
P	1	C	Flange	0.335
P	2	C	Web	0.342
P	2	C	Flange	0.584
P	2.5	C	Web	0.302
P	2.5	C	Flange	0.337
P	2.5	D	Web	0.254
P	2.5	D	Flange	0.36
P	3	A	Web	0.336
P	3	A	Flange	0.305
P	3	B	Web	0.148
P	3	B	Flange	0.551
P	3.5	C	Web	0.259
P	3.5	C	Flange	0.338
P	4	D	Web	0.286
P	4	D	Flange	0.367
P	4.5	C	Web	0.27
P	4.5	C	Flange	0.369
P	5	A	Web	0.367
P	5	A	Flange	0.37
P	5	B	Web	0.153
P	5	B	Flange	0.487
P	5.5	C	Web	0.273
P	5.5	C	Flange	0.342
P	5.5	D	Web	0.29
P	5.5	D	Flange	0.364
P	6	C	Web	0.346
P	6	C	Flange	0.588

SEE B3 on Sheet A-004



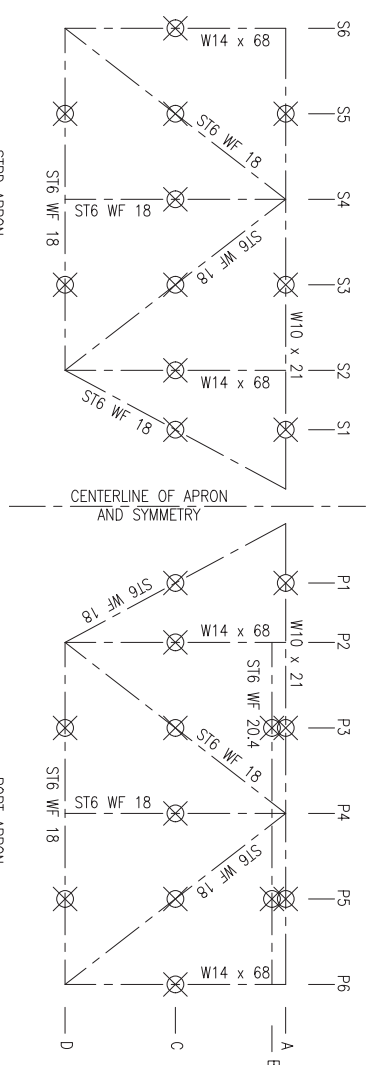
SECTION
SCALE: 3/16"=1'-0"

A-003
D1



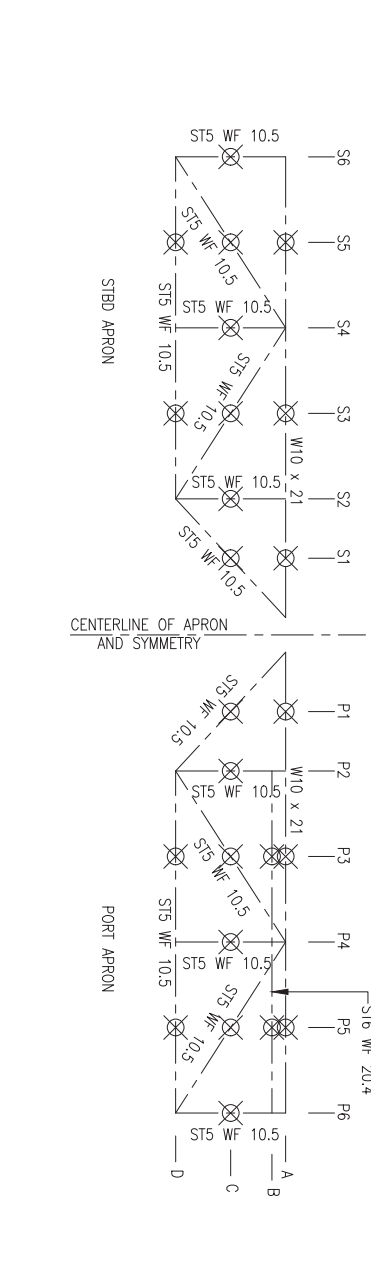
SECTION
SCALE: 3/16"=1'-0"

A-003
D3



SECTION
SCALE: 3/16"=1'-0"

A-003
B1



SECTION
SCALE: 3/16"=1'-0"

A-003
B3

— INDICATES THE LOCATION OF TWO UT MEASUREMENTS TAKEN ON STRUCTURAL MEMBERS
— ONE TAKEN ON THE FLANGE AND ONE TAKEN ON THE WEB.

3/16" = 1'-0" 0 2 4 8 12 FT

SYM	DESCRIPTION	DATE	APPR

HEGER
DRY DOCK, INC.
DRY DOCK ENGINEERS
DESIGN, INSPECTION AND CERTIFICATION
531 CONCORD STREET
MILFORD, MA 01905
(508) 426-1800

DES	DAVE ALBERT	CHK	WILLIAMS
CHIEF ENG.	WALFRED	SAVED	
DATE:	11/16/2016		

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CLIENT NAME AND ADDRESS:
BAE SYSTEMS
SAN FRANCISCO, CA.

PROJECT TITLE:
COMMERCIAL INSPECTION OF EUREKA FDD (EX AFDM 14)

DRAWING TITLE:
ORIGINAL EUREKA APRON STRUCTURE 2 OF 3

SCALE:	AS NOTED
PROJECT NO.:	3978-D
CONSTR. CONTR. NO.:	
SHEET	5 OF 7
A-004	

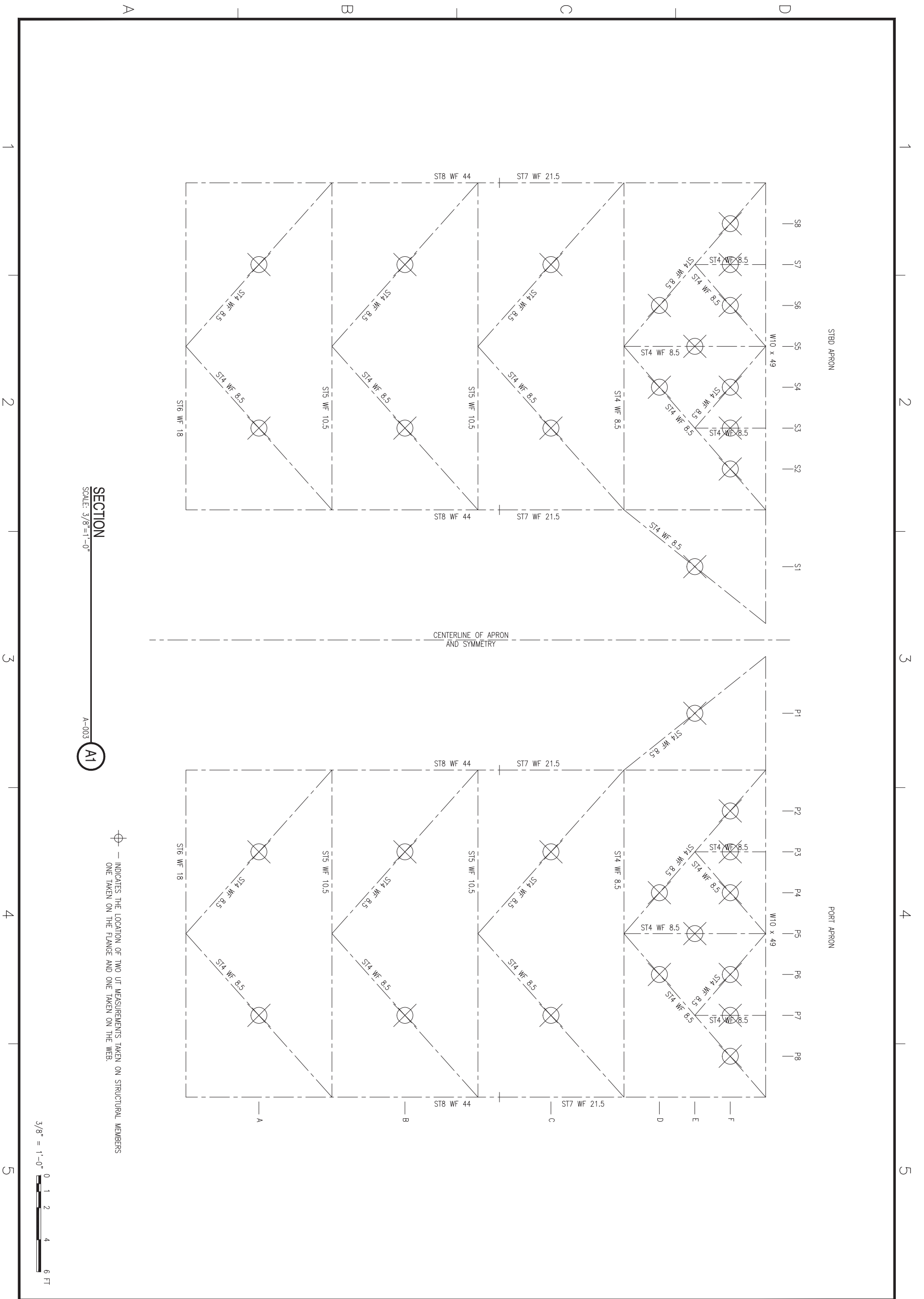
BOTTOM CHORD

				UT
S	8	F	Web	0.316
S	8	F	Flange	0.27
S	7	F	Web	0.342
S	7	F	Flange	0.293
S	7	C	Web	0.361
S	7	C	Flange	0.307
S	7	B	Web	0.363
S	7	B	Flange	0.318
S	7	A	Web	0.319
S	7	A	Flange	0.37
S	6	F	Web	0.307
S	6	F	Flange	0.275
S	6	D	Web	0.285
S	6	D	Flange	0.271
S	5	E	Web	0.313
S	5	E	Flange	0.294
S	4	F	Web	0.266
S	4	F	Flange	0.243
S	3	F	Web	0.332
S	3	F	Flange	0.278
S	3	C	Web	0.298
S	3	C	Flange	0.296
S	3	B	Web	0.387
S	3	B	Flange	0.311
S	2	A	Web	0.351
S	2	A	Flange	0.382
S	1	E	Web	0.307
S	1	E	Flange	0.286
S	2	F	Web	0.311
S	2	F	Flange	0.284
S	4	D	Web	0.313
S	4	D	Flange	0.265

SEE A1 on Sheet A-005

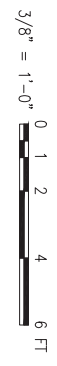
				UT
P	8	F	Web	0.302
P	8	F	Flange	0.356
P	7	F	Web	0.278
P	7	F	Flange	0.29
P	7	C	Web	0.327
P	7	C	Flange	0.36
P	7	B	Web	0.326
P	7	B	Flange	0.289
P	7	A	Web	0.314
P	7	A	Flange	0.382
P	6	F	Web	0.318
P	6	F	Flange	0.226
P	6	D	Web	0.313
P	6	D	Flange	0.372
P	5	E	Web	0.288
P	5	E	Flange	0.304
P	4	F	Web	0.273
P	4	F	Flange	0.301
P	3	D	Web	0.313
P	3	D	Flange	0.384
P	3	F	Web	0.282
P	3	F	Flange	0.258
P	3	C	Web	0.316
P	3	C	Flange	0.305
P	3	B	Web	0.355
P	3	B	Flange	0.315
P	1	E	Web	0.327
P	1	E	Flange	0.359
P	2	F	Web	0.287
P	2	F	Flange	0.229
P	4	D	Web	0.312
P	4	D	Flange	0.306

SEE A1 on Sheet A-005



SECTION
SCALE: 3/8"=1'-0"
A-003
A1

⊗ — INDICATES THE LOCATION OF TWO UT MEASUREMENTS TAKEN ON STRUCTURAL MEMBERS
○ — ONE TAKEN ON THE FLANGE AND ONE TAKEN ON THE WEB.



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<p>DATE: 11/16/2016 DRAWN: ALB CHECKED: WJN DESIGN: WJN</p>	<p>DATE: 11/16/2016 DRAWN: ALB CHECKED: WJN DESIGN: WJN</p>		
<p>CLIENT NAME AND ADDRESS: BAE SYSTEMS SAN FRANCISCO, CA.</p>			
<p>PROJECT TITLE: COMMERCIAL INSPECTION OF EUREKA FDD (EX AFDM 14)</p>			
<p>DRAWING TITLE: ORIGINAL EUREKA APRON STRUCTURE 3 OF 3</p>			
<p>SCALE: AS NOTED PROJECT NO.: 3978-D CONSTR. CODE: NA</p>			
<p>SHEET 6 OF 7 A-005</p>			
SYN	DESCRIPTION	DATE	APPR

A B C D

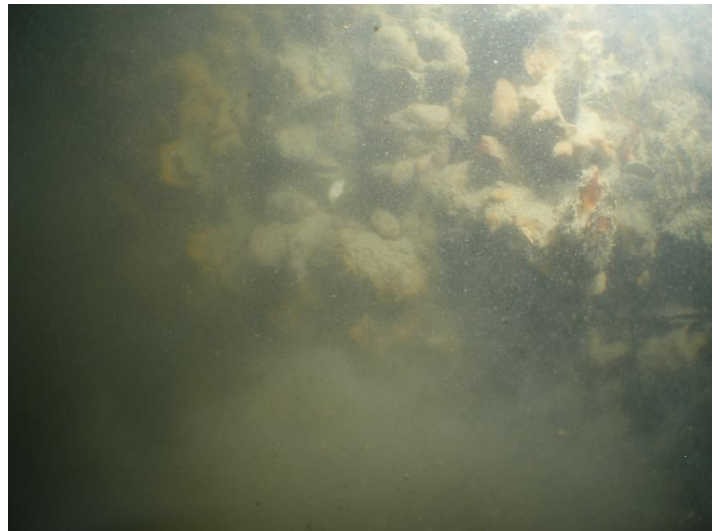
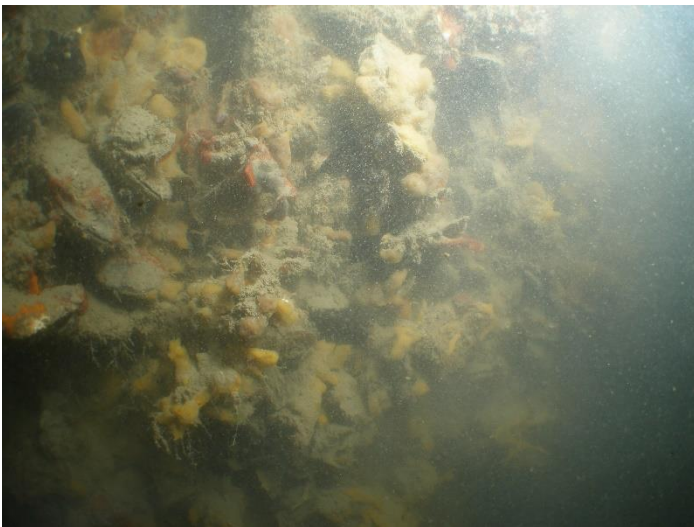
6.0 CLEANING OF INTAKE & DISCHARGE SCREENS

METHOD

A dive crew consisting of 3 men, with surface supplied air diving equipment and using a low-pressure diving compressor will send a diver in the water with surface to diver communications to pressure wash the intake/discharge screens on the Eureka dry dock with a 5000 PSI pressure washer to remove the soft and hard growth from the screens. The diver will inspect and report his findings on the screens.

DIVERS FINDINGS

The dive crew cleaned the screens. The screens had mostly hard growth and were clogged up to 90%. All the screens were pressure washed and the marine growth was removed.



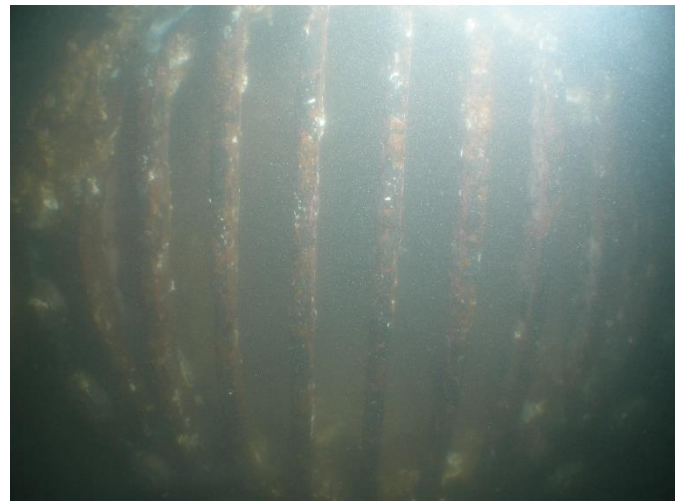
Typical condition of a screen (90% clogged with marine growth)

Diver checked each screen again after cleaning and found one screen that has a bent bar which is identified in ***Drawing B***. All other screens are securely fastened to dry dock and in good condition. Below are pictures of a few screens which are typical of all screens after cleaning.

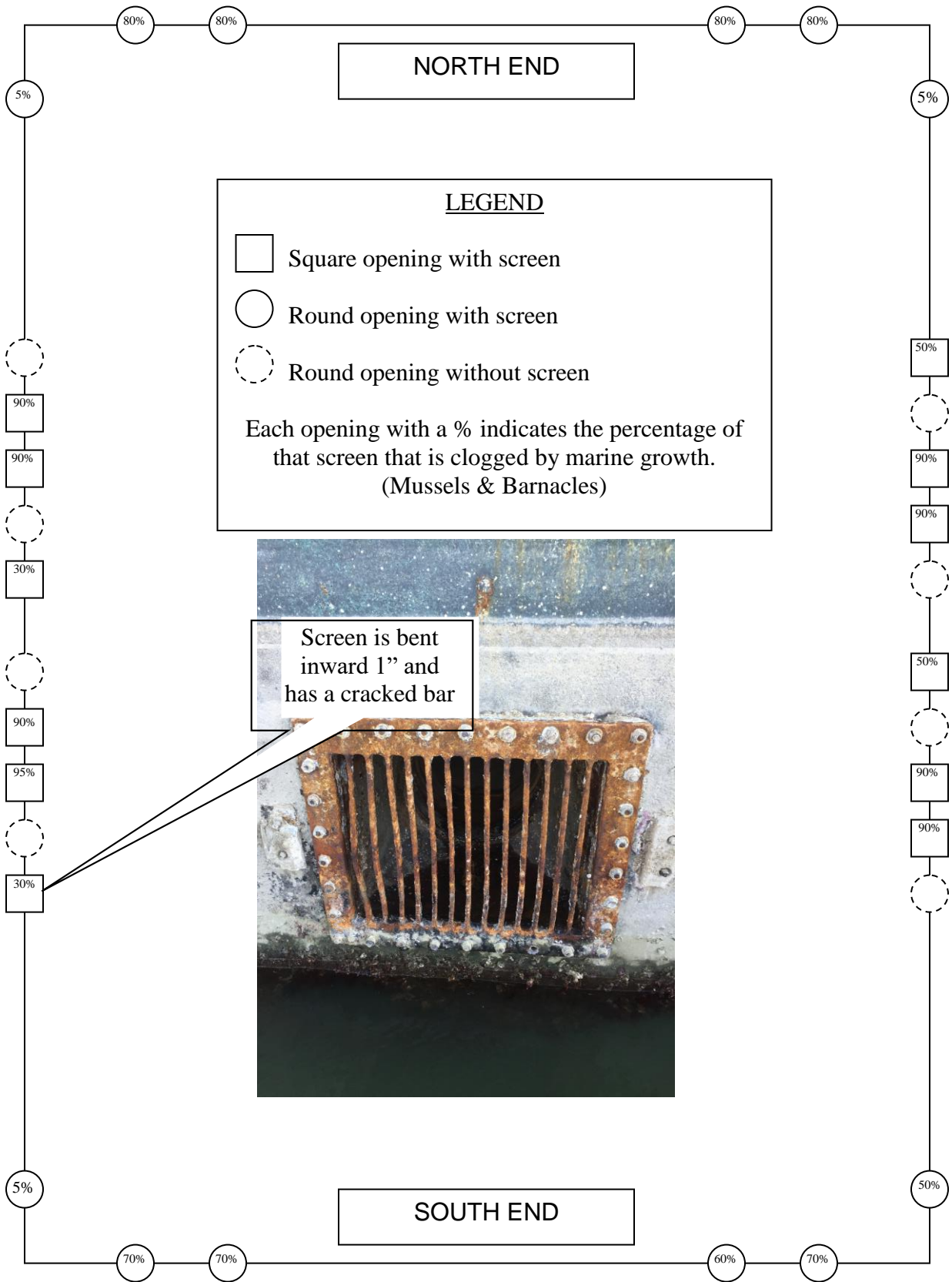
Two intake screen pictures below are “typical” of all intake screens



Two discharge screen pictures below are “typical” of all discharge screens



DRAWING B % of marine growth on each screen



END OF REPORT