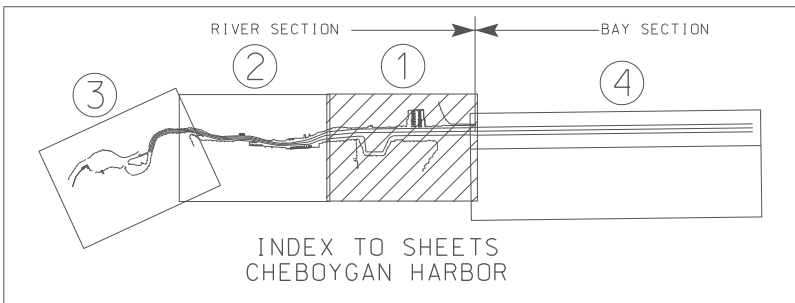
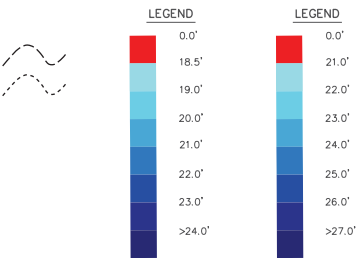


- NOTES:
- 1) THE SOUNDINGS AND ASSOCIATED INFORMATION REPRESENTED HEREIN ARE THE RESULT OF SURVEYS MADE ON THE DATE AS INDICATED AND CAN ONLY BE CONSIDERED REPRESENTATIVE OF THE GENERAL CONDITIONS EXISTING AT THE TIME OF SURVEY.
 - 2) THE SOUNDINGS DEPICTED HEREIN ARE EXPRESSED IN U.S. SURVEY FEET AND TENTHS THEREOF AND ARE REFERENCED TO THE FOLLOWING DATUMS:
HORIZONTAL: MICHIGAN STATE PLANE COORDINATE SYSTEM, MICHIGAN CENTRAL ZONE #2112, NORTH AMERICAN DATUM (NAD) OF 1983.
VERTICAL: INTERNATIONAL GREAT LAKES DATUM (IGLD) OF 1985.
 - 3) THE ABOVE SURVEY WAS CONDUCTED USING THE U.S.A.C.E. SURVEY VESSEL LAUNCH 3053 EMPLOYING THE FOLLOWING COMPONENTS:
POSITIONING: APPLANIX POS-MV4 W/DGPS CORRECTIONS,
U.S.C.G. BEACON #292
MOTION COMPENSATION: APPLANIX POS-MV4
SONAR: ODOM CV-300 (SINGLEBEAM TRANSDUCER)
SOFTWARE: HYPACK 2012
 - 4) WATER LEVEL ELEVATIONS WERE OBTAINED FROM TBM STEEL CORNER WHICH WAS ESTABLISHED FROM NGS VERTICAL CONTROL POINT BM RANGE (PD OK0021).
 - 5) THE EDITED SINGLEBEAM DATA WAS SORTED INTO A 10 FT. DATA SET WITH THE RESULTING POINTS POSTED.



CENTERLINE TURNING POINTS			
STATION	EAST	NORTH	
POL1 0+00	19,660,231.62	853,433.91	
POL2 0+90.41	19,660,182.64	853,357.91	
3 29+90.46	19,658,611.73	850,920.18	


CONTROL POINTS (G.P.S.)			
STATION	EAST	NORTH	
DAYRL-2	19,659,880.64	852,420.51	
USBL 3	19,658,817.58	850,809.69	

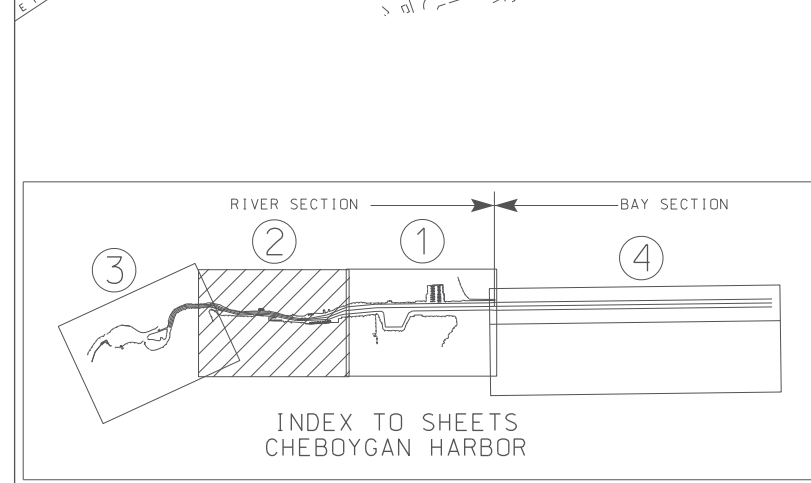
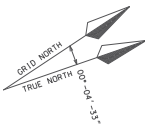
CHANNEL LIMITS TURNING POINTS			
STATION	EAST	NORTH	
1	19,660,320.87	853,387.80	
2	19,660,152.75	853,496.13	
3	19,660,258.29	853,309.16	
4	19,660,106.99	853,406.67	
5	19,658,687.12	850,870.34	
6	19,658,534.17	850,965.96	

TURNING BASIN TURNING POINTS			
STATION	EAST	NORTH	
1	19,659,188.45	851,648.97	
2	19,659,175.30	851,541.48	
3	19,659,378.26	851,204.24	
4	19,659,148.32	850,852.19	
5	19,658,830.94	851,009.42	
6	19,658,768.62	850,997.48	

NAVIGATIONAL AIDES			
STATION	EAST	NORTH	
ENTRANCE LIGHT (L.L.11070)	19,660,094.1	853,522.5	
NAVIGATIONAL AIDE NO. 1	19,659,717.3	852,951.7	

CONTROL POINTS (CORPSCON)			
STATION	EAST	NORTH	
10	19,658,947.19	852,767.92	
11	19,659,335.20	851,602.87	
12	19,659,570.91	851,120.71	
16	19,656,579.75	846,070.61	
17	19,656,561.06	845,122.34	
BILL	19,659,502.04	851,212.76	
DAYRL	19,659,838.20	852,394.92	
DOCK	19,659,306.74	851,570.71	
DUNCAN	19,663,856.50	851,924.91	
GULF	19,658,476.55	850,283.15	
MICHELE	19,659,728.32	852,971.81	
P/L COR. S.E.	19,658,995.73	851,858.55	
P/L COR. S.W.	19,658,644.78	852,085.94	
RWTP 2	19,659,149.50	850,663.20	


UNITED STATES ARMY CORPS OF ENGINEERS
 DETROIT AREA OFFICE, DETROIT, MICHIGAN
CONDITION SURVEY
CHEBOYGAN HARBOR, MI
 CS 00+00 TO CS 37+00
 DRAWN BY: J.K.P.
 CHECKED BY: C.V.L.
 DATE OF SURVEY: SEPTEMBER 21, 2016
 SCALE 1" = 100'
 SHEET 1 OF 4



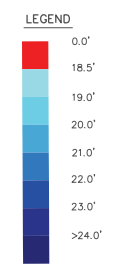
CONTROL POINTS (CORPSCON)			
STATION	EAST	NORTH	
13	19.658.727.92	849.884.52	
14	19.657.573.77	848.101.72	
MAR	19.657.167.02	848.342.20	
MICHELE	19.659.728.32	852.971.81	
P/L COR. S.E.	19.658.995.73	851.858.55	
P/L COR. S.W.	19.658.644.78	852.085.94	
REAR RANGE LT.	19.657.252.84	848.809.95	
RWTP 2	19.659.149.50	850.663.20	

CENTERLINE TURNING POINTS			
STATION	EAST	NORTH	
4	37+90.50	19.658.232.45	850.215.76
5	42+35.52	19.658.139.43	849.780.57
6	47+06.69	19.657.926.29	849.360.36
7	50+06.71	19.657.765.33	849.107.17
8	53+87.24	19.657.500.85	848.833.59
9	57+32.77	19.657.246.86	848.599.33
10	61+09.11	19.657.030.52	848.291.39
11	64+73.94	19.656.849.27	847.974.77
12	68+97.21	19.656.531.68	847.694.96
13	71+84.84	19.656.294.08	847.532.85


CHANNEL LIMITS TURNING POINTS			
STATION	EAST	NORTH	
7	19.658.311.70	850.173.09	
8	19.658.198.00	850.341.60	
9	19.658.255.59	850.036.96	
10	19.658.080.76	849.793.11	
11	19.658.198.11	849.768.03	
12	19.657.905.20	849.373.77	
13	19.657.947.39	849.346.95	
14	19.657.771.06	849.162.78	
15	19.657.771.72	849.070.61	
16	19.657.709.02	849.092.08	
17	19.657.521.82	848.812.12	
18	19.657.479.87	848.855.06	
19	19.657.269.56	848.579.46	
20	19.657.224.15	848.619.21	
21	19.657.055.86	848.275.28	
22	19.657.005.17	848.307.50	
23	19.656.872.83	847.955.55	
24	19.656.848.07	848.033.07	
25	19.656.550.13	847.671.23	
26	19.656.791.91	847.964.23	
27	19.656.357.79	847.540.01	
28	19.656.513.24	847.718.68	
29	19.656.290.98	847.468.82	
30	19.656.271.67	847.553.88	

CONTROL POINTS (G.P.S.)			
STATION	EAST	NORTH	
IVAN	19.657.978.97	849.178.31	

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8.5 FT. PROJECT DEPTH CONTOUR
18.5 FT. PROJECT DEPTH CONTOUR



US ARMY CORPS OF ENGINEERS
DETROIT DISTRICT

UNITED STATES ARMY CORPS OF ENGINEERS
DETROIT AREA OFFICE - DETROIT, MICHIGAN

CONDITION SURVEY
CHEBOYGAN HARBOR, MI

CS 38+00 TO CS 72+00

DRAWN BY: J.K.P.

CHECKED BY: C.V.L.

DATE OF SURVEY: SEPTEMBER 21, 2016

SCALE 1" = 100'

SHEET 2 OF 4