Chart 52122 (A) NM N38/14

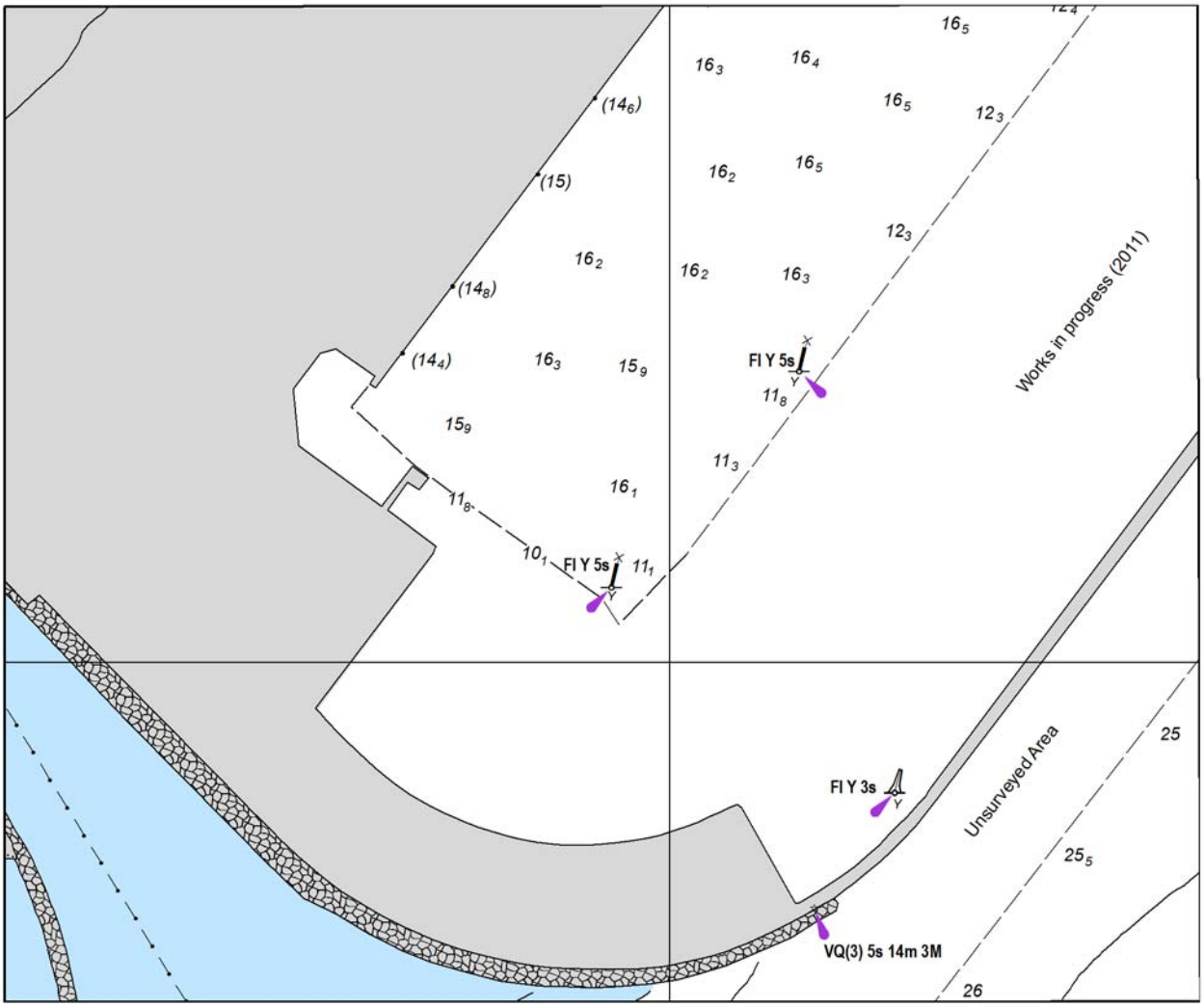

Chart 52122 (B) NM N38/14

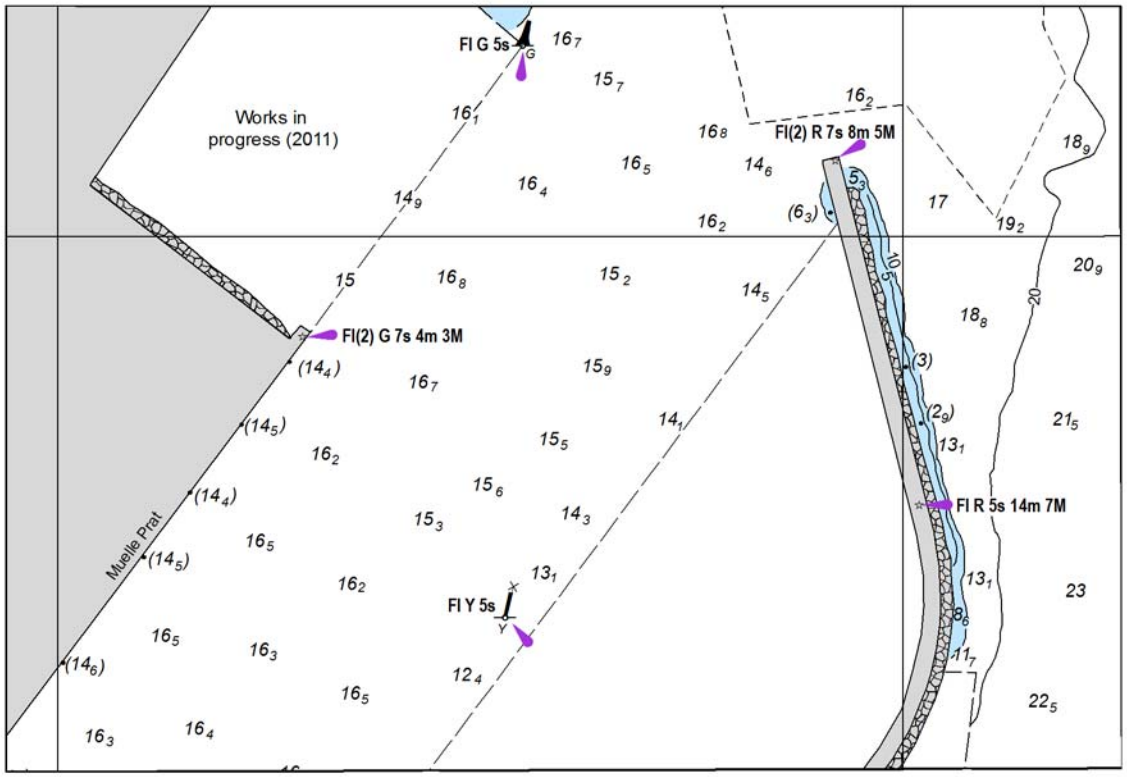

Chart 52126 NM N38/14

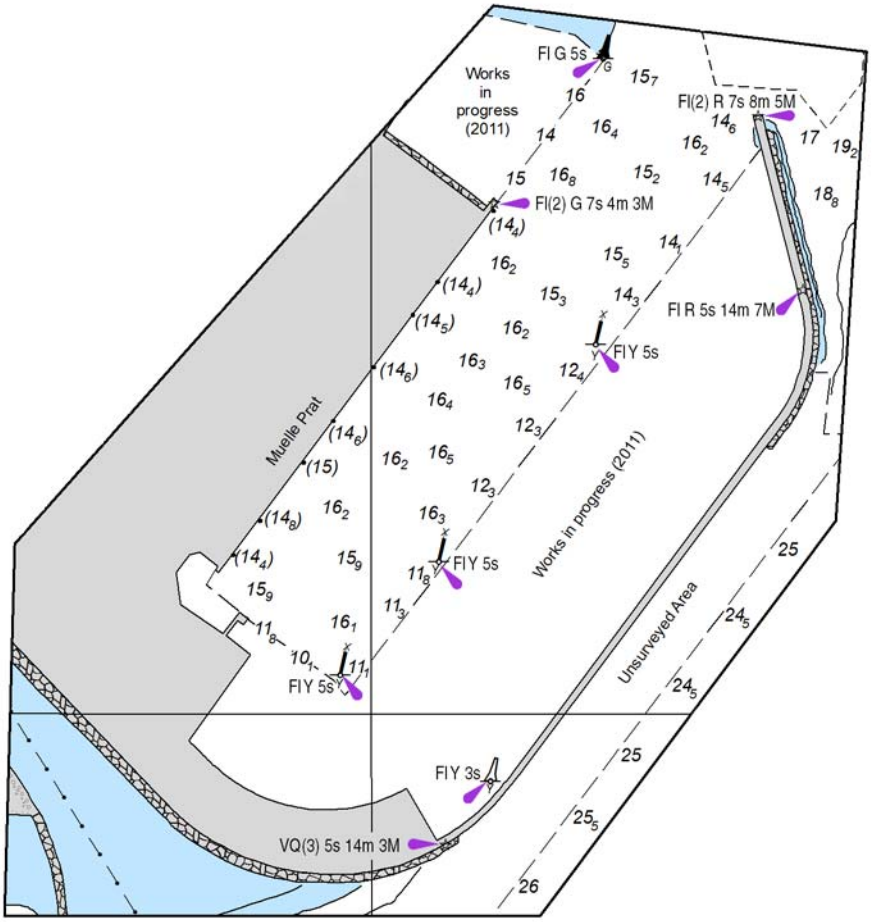

Chart 14832 NM 38/14

BUFFALO HARBOR CHANNEL DEPTHS

TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF APR 2014 AND SURVEYS TO APR 2014

CONTROLLING DEPTHS FROM SEAWARD IN FEET AT GREAT LAKES LOW WATER DATUM (LWD)						PROJECT DIMENSIONS		
NAME OF CHANNEL	LEFT OUTSIDE QUARTER	LEFT INSIDE QUARTER	RIGHT INSIDE QUARTER	RIGHT OUTSIDE QUARTER	DATE OF SURVEY	WIDTH (FEET)	LENGTH (FEET)	DEPTH LWD (FEET)
BUFFALO HARBOR:								
SOUTH APPROACH	27.9	28.0	27.3	11.3	5-10	1000	2000	30
SOUTH ENTRANCE	26.5	25.5	24.2	19.7	5-10	1200-400	1950	29
INNER HARBOR SOUTH SECTION	13.2	21.2	22.8	23.4	5-10	1100-1600	3900	28
INNER HARBOR MOORING AREA	18.0	18.5	19.5	21.4	5-10	0-900	4200	23
INNER HARBOR MIDDLE SECTION	20.5	22.6	23.0	21.7	5-10	500-1600	11150	27
NORTH ENTRANCE	22.4	24.4	24.7	22.8	5-10	800	3000	25
INNER HARBOR NORTH SECTION	17.1	19.9	20.8	20.6	5-10	1370-1200	4800	23
BUFFALO RIVER ENTRANCE CHANNEL	9.8	13.6	16.3	13.1	5-11	1600-450	4100	23
BLACK ROCK CANAL:								
ENTRANCE CHANNEL	15.0	18.5	17.2	5.4	4-14	1000-450	4860	21
ENTRANCE TO BLACK ROCK LOCKS	2.6	17.3	19.0	6.6	4-14	500-200	18530	21
THENCE TO BUOY 12	10.9	18.7	19.6	10.9	5,6,7,8-08	200-400	10330	21

NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

Chart 14833 NM 38/14

BUFFALO HARBOR CHANNEL DEPTHS

TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF APR 2014 AND SURVEYS TO APR 2014

CONTROLLING DEPTHS FROM SEAWARD IN FEET AT GREAT LAKES LOW WATER DATUM (LWD)						PROJECT DIMENSIONS		
NAME OF CHANNEL	LEFT OUTSIDE QUARTER	LEFT INSIDE QUARTER	RIGHT INSIDE QUARTER	RIGHT OUTSIDE QUARTER	DATE OF SURVEY	WIDTH (FEET)	LENGTH (FEET)	DEPTH LWD (FEET)
BUFFALO HARBOR:								
SOUTH APPROACH	27.9	28.0	27.3	11.3	5-10	1000	2000	30
SOUTH ENTRANCE	26.5	25.5	24.2	19.7	5-10	1200-400	1950	29
INNER HARBOR SOUTH SECTION	13.2	21.2	22.8	23.4	5-10	1100-1600	3900	28
INNER HARBOR MOORING AREA	18.0	18.5	19.5	21.4	5-10	0-900	4200	23
INNER HARBOR MIDDLE SECTION	20.5	22.6	23.0	21.7	5-10	500-1600	11150	27
NORTH ENTRANCE	22.4	24.4	24.7	22.8	5-10	800	3000	25
INNER HARBOR NORTH SECTION	17.1	19.9	20.8	20.6	5-10	1370-1200	4800	23
BUFFALO RIVER:								
ENTRANCE CHANNEL	9.8	13.6	16.3	13.1	5-11	1600-450	4100	23
BUFFALO SHIP CANAL	17.5	19.7	19.7	15.8	5-11	125	5500	23
FROM ENTRANCE TO HAMBURG ST	2.2	17.2	17.2	8.8	5-11	150-350	8700	23
FROM HAMBURG ST TO SOUTH PARK STREET BRIDGE	1.3	3.4	3.4	1.2	5-11	150-700	14000	23
FROM SOUTH PARK BRIDGE TO END OF PROJECT	7.9	10.6	10.6	8.3	5-11	150-200	3000	23
BLACK ROCK CANAL:								
ENTRANCE CHANNEL	15.0	18.5	17.2	5.4	4-14	1000-450	4860	21
ENTRANCE TO BLACK ROCK LOCKS	2.6	17.3	19.0	6.6	4-14	500-200	18530	21

NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

Chart 14836 NM 38/14

ASHTABULA RIVER AND HARBOR CHANNEL DEPTHS

TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF JUN 2014

CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER (MLLW)						PROJECT DIMENSIONS		
NAME OF CHANNEL	LEFT OUTSIDE QUARTER	LEFT INSIDE QUARTER	RIGHT INSIDE QUARTER	RIGHT OUTSIDE QUARTER	DATE OF SURVEY	WIDTH (FEET)	LENGTH FEET	DEPTH MLLW (FEET)
ASHTABULA HARBOR (AREA)								
LAKE APPROACH CHANNEL (A)	16.9	30.3	27.2	17.2	5-13	600	*	29
OUTER HARBOR (B)	18.1	25.0	25.4	4.6	5-13	600-1400	2600 (b)	28
INNER HARBOR TO MINNESOTA SLIP (C)	13.5	12.8	12.3	3.2	5-13	1080	1100	27
APPROACH TO MINNESOTA SLIP (CC)	21.6	21.6	21.6	21.6	5-13	300-420	825	27
TURNING BASIN AND MOORING AREA (D)	15.7	15.7	15.7	15.7	5-13	1200	1300 (b)	22*
ACCESS TO THE EAST BASIN (E)	13.3	8.4	8.5	6.2	5-13	700-1200	3100	28
CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER (MLLW)						PROJECT DIMENSIONS		
NAME OF CHANNEL	LEFT OUTSIDE QUARTER	LEFT INSIDE QUARTER	RIGHT INSIDE QUARTER	RIGHT OUTSIDE QUARTER	DATE OF SURVEY	WIDTH (FEET)	LENGTH FEET	DEPTH MLLW (FEET)
ASHTABULA RIVER CHANNEL (AREA)								
FIRST 2000 FEET (F)	8.5	16.2	9.7	18.0	5-13	230-170	2000	27
THENCE TO FIFTH ST BRIDGE (G)	15.1	16.2	16.8	17.2	5-13	100-150	1880	18*
THENCE TO UPSTREAM END OF UPPER TURNING BASIN (GG)	2.8	3.0	3.2	9.5	5-13	100-250	1370	18*
THENCE TO OLD CAR FERRY DOCKS (H)	7.8	9.4	9.4	9.0	5-13	100-200	3600	16*
UPPER TURNING BASIN (I)	10.3	10.3	10.3	10.3	5-13	400	450 (b)	16*
THENCE TO THE END OF PROJECT (J)	1.8	1.7	1.7	2.6	5-13	100	1551	16*

* - NOT MAINTAINED
(b) - IRREGULARLY SHAPED, CONSULT THE CORPS OF ENGINEERS
NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

Chart 14841 NM 38/14

LORAIN HARBOR CHANNEL DEPTHS

TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - SURVEYS TO MAY 2014 AND REPORTS TO MAY 2014

CONTROLLING DEPTHS FROM SEAWARD IN FEET AT GREAT LAKES LOW WATER DATUM (LWD)						PROJECT DIMENSIONS		
NAME OF CHANNEL	LEFT OUTSIDE QUARTER	LEFT INSIDE QUARTER	RIGHT INSIDE QUARTER	RIGHT OUTSIDE QUARTER	DATE OF SURVEY	WIDTH (FEET)	LENGTH (FEET)	DEPTH LWD (FEET)
LAKE APPROACH CHANNEL (A)	24.1	27.8	26.3	25.1	5-14	800-525	2000(a)	29
OUTER HARBOR (B)	20.1	24.6	26.4	19.3	5-14	800-200	2700(b)	28
EAST MOORING AREA (C)		10.9*			5-14	0-580(c)	1250(b)	25
WEST MOORING AREA (D)		7.8*			5-14	0-1000(c)	1550(b)	25
NAME OF CHANNEL	LEFT OUTSIDE QUARTER	MIDDLE HALF OF CHANNEL		RIGHT OUTSIDE QUARTER	DATE OF SURVEY	WIDTH (FEET)	LENGTH (FEET)	DEPTH LWD (FEET)
BLACK RIVER CHANNEL :								
FROM EAST PIER LIGHT TO 1000 FEET UPSTREAM (E)	22.2	28.5		23.5	5-14	220	1000	28
FROM UPSTREAM END OF (E) TO N&W RAILROAD BRIDGE (F)	11.0	24.8		12.7	5-14	200-400	4400	27
FROM N&W RAILROAD BRIDGE TO THE 21ST STREET BRIDGE (G)	20.7	23.6		17.0	5-14	200-600	4100	27
FROM 21ST STREET BRIDGE TO WITHIN 400 FEET OF UPSTREAM PROJECT LIMITS (H)	10.3	11.2		11.3	5-14	200-400	4800	27
BLACK RIVER CHANNEL, UPSTREAM 400 FEET (L)	10.9	7.8		2.7	5-14	200	400	24
LOWER TURNING BASIN (I)		3.6*			5-14	0-200	1000(b)	20
UPPER TURNING BASIN (J)		7.6*			5-14	0-700	1200(b)	21
UPPER TURNING BASIN (K)		2.3*			5-14	0-400	600(b)	17

* REPORTED DEPTH IS FOR FULL WIDTH OF BASIN.
a. LENGTH VARIES DEPENDING ON THE LOCATION OF THE 29 FOOT CONTOUR IN LAKE ERIE.
b. IRREGULARLY SHAPED, WITH THE WIDTH VARYING.
c. NOT FULLY MAINTAINED.
NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

Chart 14846 (Page 1) NM 38/14

TOLEDO HARBOR CHANNEL DEPTHS
TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF JAN 2014
AND SURVEYS TO NOV 2013

CONTROLLING DEPTHS FROM SEAWARD IN FEET AT GREAT LAKES LOW WATER DATUM (LWD)						PROJECT DIMENSIONS		
NAME OF CHANNEL	LEFT OUTSIDE QUARTER	LEFT INSIDE QUARTER	RIGHT INSIDE QUARTER	RIGHT OUTSIDE QUARTER	DATE OF SURVEY	WIDTH (FEET)	LENGTH (MILES FEET)	DEPTH LWD (FEET)
ENTRANCE CHANNEL (A)	25.8	28.0	28.0	25.1	11-13	500	4(a)	28
ENTRANCE CHANNEL (B)	25.0A	25.6	26.4	24.4B	8-13	500	5	28
ENTRANCE CHANNEL (C)	23.0C	24.0	22.4	15.2	7-13	500	5	28
ENTRANCE CHANNEL (D)	24.5	26.6	26.6	26.0D	7-13	500-950	2	28
SECTION K - WEST WIDENING AREA (b)	N/A	N/A	N/A	N/A	-	0-480	7200'	28
THENCE TO TURNING BASIN (E)	10.7	15.1	15.1	4.9	8-13	400-100	14,000'	27
LOWER TURNING BASIN (F)	21.3	19.3	12.7	8.2	7-13	350	1300'	20
THENCE TO MIDDLE TURNING BASIN (G)	11.5E	13.0	13.0	13.7F	7-13	200-400	18,900'	27
MIDDLE TURNING BASIN (H)	18.0	17.7	17.2	15.5	7-13	0-700	1300'	27
MIDDLE TURNING BASIN TO END OF PROJ. (I)	5.9	7.8	7.8	10.4	7-13	200	2600'	25
UPPER TURNING BASIN (J)	11.1	11.1	11.1	11.1	7-13	800	1100'	18

A. Shoaling to 23.0 within 0' of Left limit, 18045' from start of reach 41°45'45.18"N 83°19'23.15"W
B. Shoaling to 21.1 within 0' of Right limit, 23375' from start of reach 41°45'21.29"N 83°20'26.18"W
C. Shoaling to 20.0 within 0' of Left limit, 25055' from start of reach 41°42'49.15"N 83°25'35.93"W
D. Shoaling to 20.4 within 0' of Right limit, 3791' from start of reach 41°42'26.23"N 83°26'36.70"W
E. Shoaling to 9.9 within 1' of Left limit, 17505' from start of reach 41°37'45.86"N 83°31'49.25"W
F. Shoaling to 11.7 within 0' of Right limit, 8713' from start of reach 41°39'11.06"N 83°31'42.25"W

a. LENGTH VARIES DEPENDING ON THE LOCATION OF THE 28 FOOT CONTOUR IN LAKE ERIE.
b. WEST WIDENING (K) IS CONSIDERED PART OF SECTIONS (D) AND (E).
NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

Chart 14847 NM 38/14

TOLEDO HARBOR CHANNEL DEPTHS
TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF JAN 2014
AND SURVEYS TO NOV 2013

CONTROLLING DEPTHS FROM SEAWARD IN FEET AT GREAT LAKES LOW WATER DATUM (LWD)						PROJECT DIMENSIONS		
NAME OF CHANNEL	LEFT OUTSIDE QUARTER	LEFT INSIDE QUARTER	RIGHT INSIDE QUARTER	RIGHT OUTSIDE QUARTER	DATE OF SURVEY	WIDTH (FEET)	LENGTH (MILES FEET)	DEPTH LWD (FEET)
ENTRANCE CHANNEL (A)	25.8	28.0	28.0	25.1	11-13	500	4(a)	28
ENTRANCE CHANNEL (B)	25.0A	25.6	26.4	24.4B	8-13	500	5	28
ENTRANCE CHANNEL (C)	23.0C	24.0	22.4	15.2	7-13	500	5	28
ENTRANCE CHANNEL (D)	24.5	26.6	26.6	26.0D	7-13	500-950	2	28
SECTION K - WEST WIDENING AREA (b)	N/A	N/A	N/A	N/A	-	0-480	7200'	28
THENCE TO TURNING BASIN (E)	10.7	15.1	15.1	4.9	8-13	400-100	14,000'	27
LOWER TURNING BASIN (F)	21.3	19.3	12.7	8.2	7-13	350	1300'	20
THENCE TO MIDDLE TURNING BASIN (G)	11.5E	13.0	13.0	13.7F	7-13	200-400	18,900'	27
MIDDLE TURNING BASIN (H)	18.0	17.7	17.2	15.5	7-13	0-700	1300'	27
MIDDLE TURNING BASIN TO END OF PROJ. (I)	5.9	7.8	7.8	10.4	7-13	200	2600'	25
UPPER TURNING BASIN (J)	11.1	11.1	11.1	11.1	7-13	800	1100'	18

A. Shoaling to 23.0 within 0' of Left limit, 18045' from start of reach 41°45'45.18"N 83°19'23.15"W
B. Shoaling to 21.1 within 0' of Right limit, 23375' from start of reach 41°45'21.29"N 83°20'26.18"W
C. Shoaling to 20.0 within 0' of Left limit, 25055' from start of reach 41°42'49.15"N 83°25'35.93"W
D. Shoaling to 20.4 within 0' of Right limit, 3791' from start of reach 41°42'26.23"N 83°26'36.70"W
E. Shoaling to 9.9 within 1' of Left limit, 17505' from start of reach 41°37'45.86"N 83°31'49.25"W
F. Shoaling to 11.7 within 0' of Right limit, 8713' from start of reach 41°39'11.06"N 83°31'42.25"W

a. LENGTH VARIES DEPENDING ON THE LOCATION OF THE 28 FOOT CONTOUR IN LAKE ERIE.
b. WEST WIDENING (K) IS CONSIDERED PART OF SECTIONS (D) AND (E).
NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION