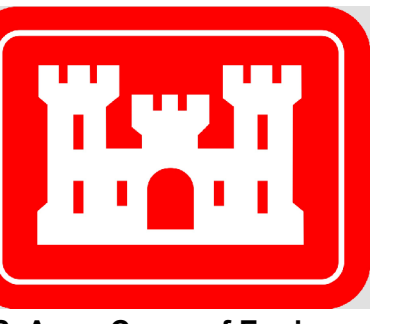
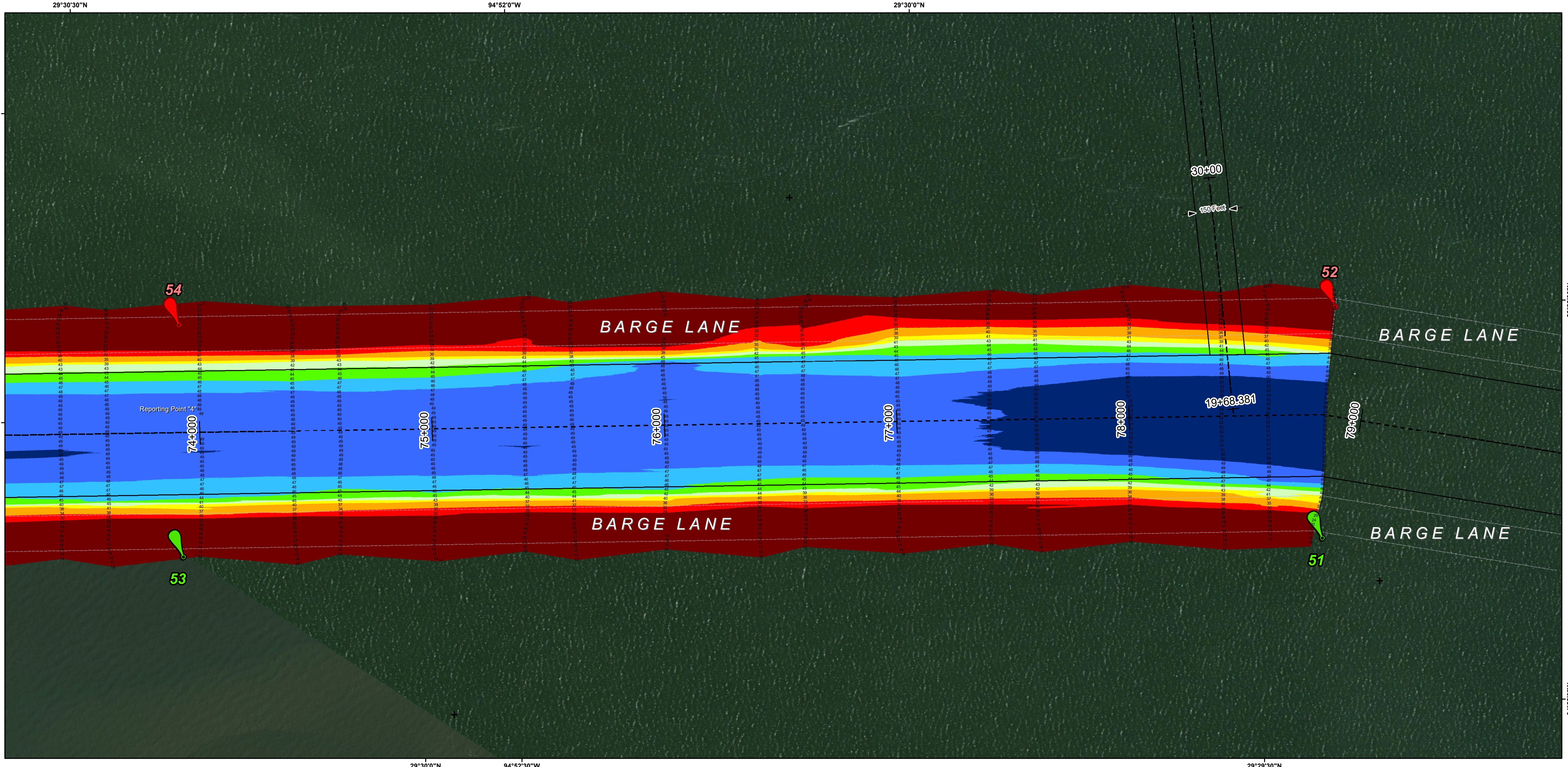
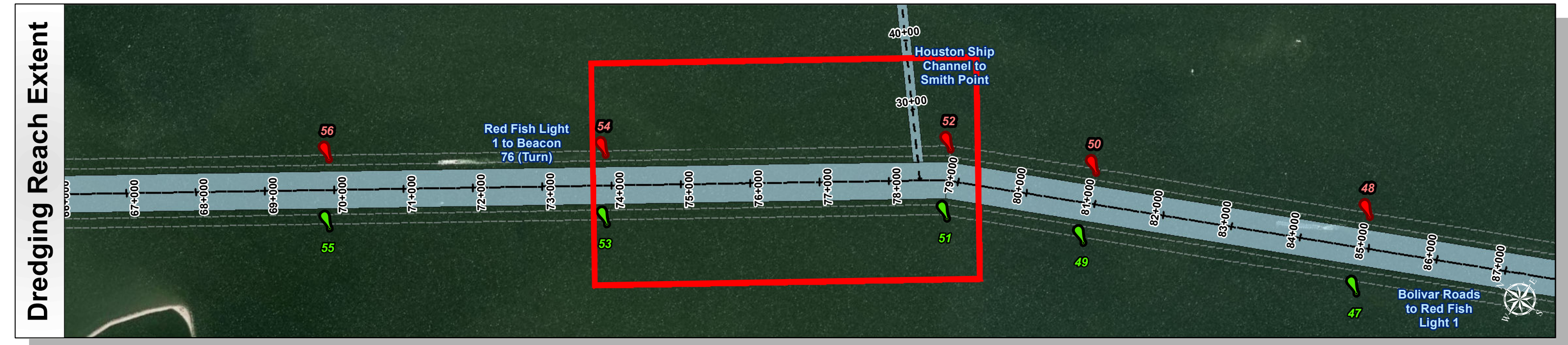
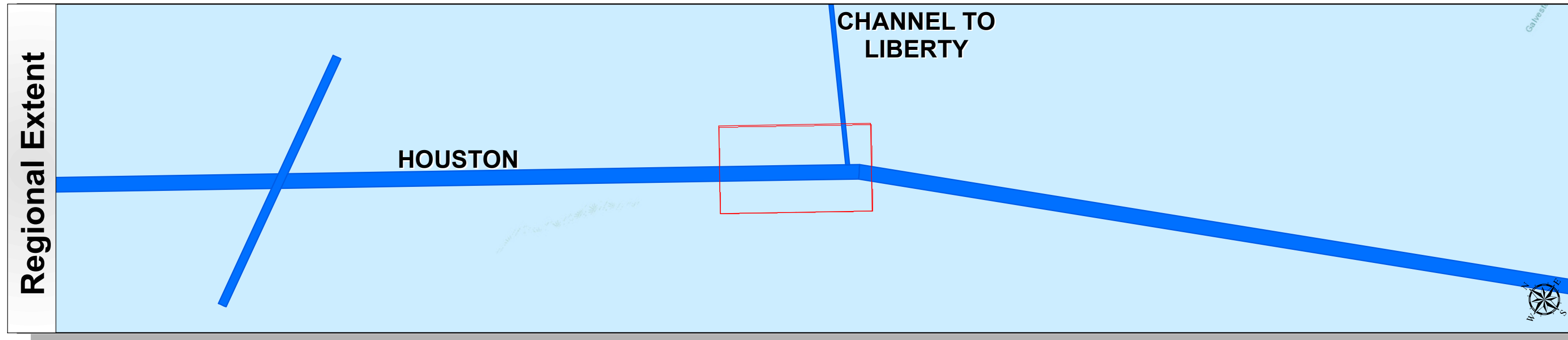
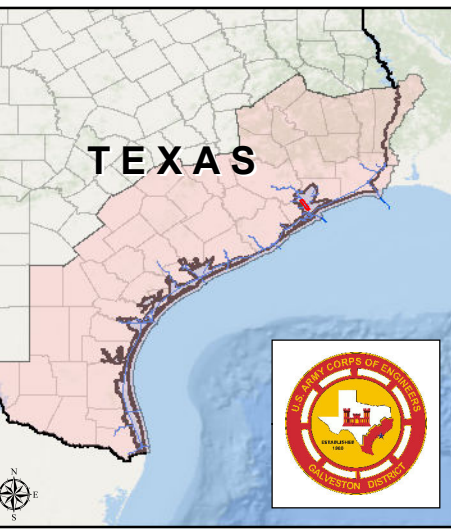


Houston Ship Channel: Red Fish Light 1 to Beacon 76 (Turn)



U.S. Army Corps of Engineers
Galveston District



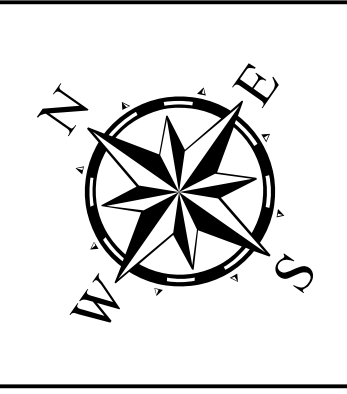
Channel Features	Aids to Navigation	MLLW
— Channel Toe	Green Side Aids	0 - 30
- - - Channel Center Line	Red Side Aids	30 - 35
— Channel Station Lines	Lights	35 - 40
↔ Channel Dimensions		40 - 42
		42 - 44
		44 - 46
		46 - 48
		48 - 50
		< 50
		NOAA Bathymetry (DREDGING REACH EXTENT)
		0 - 10 10 - 15 15 - 20 20 - 25 25 - 30 30 - 50

NOTES:

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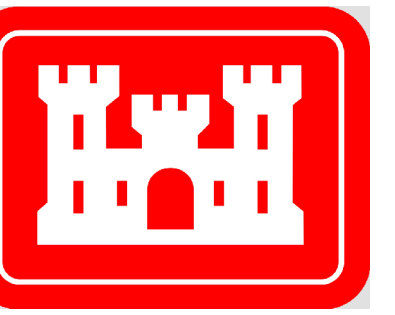
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Dredging Reach Extent 0 0.25 0.5 1 Miles
Hydrographic Survey Extent 0 215 430 860 Feet

Survey Date(s): 07 October 2019	Authorized Depth: -46ft.
Page: 11 of 61	Side Slope Ratio: (Rise : Run)
Scale: 1:2,500	Additional Imagery: © DigitalGlobe Inc.
Mapped by: m3odm/mg	Print Date: 1/8/2020
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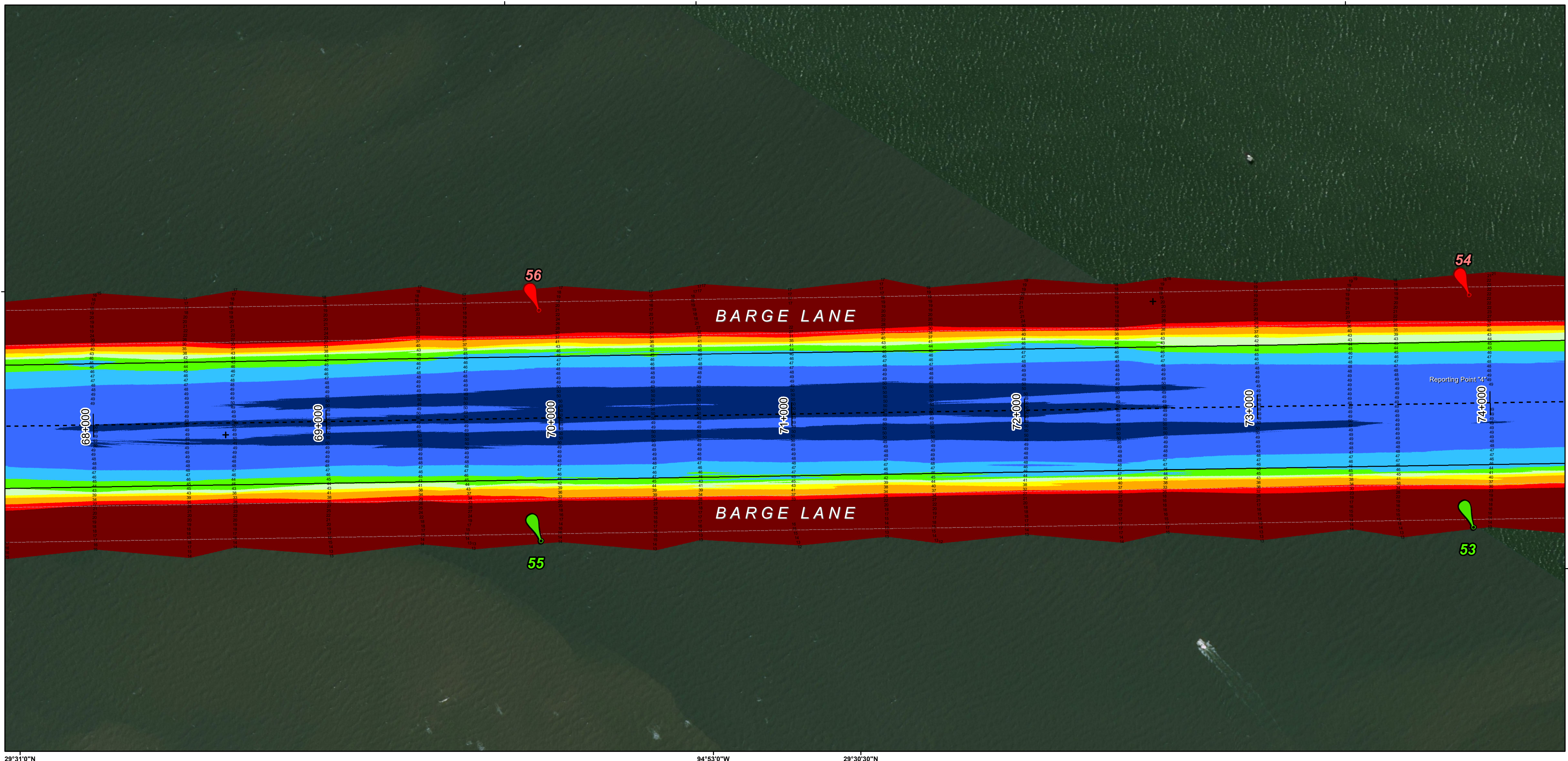
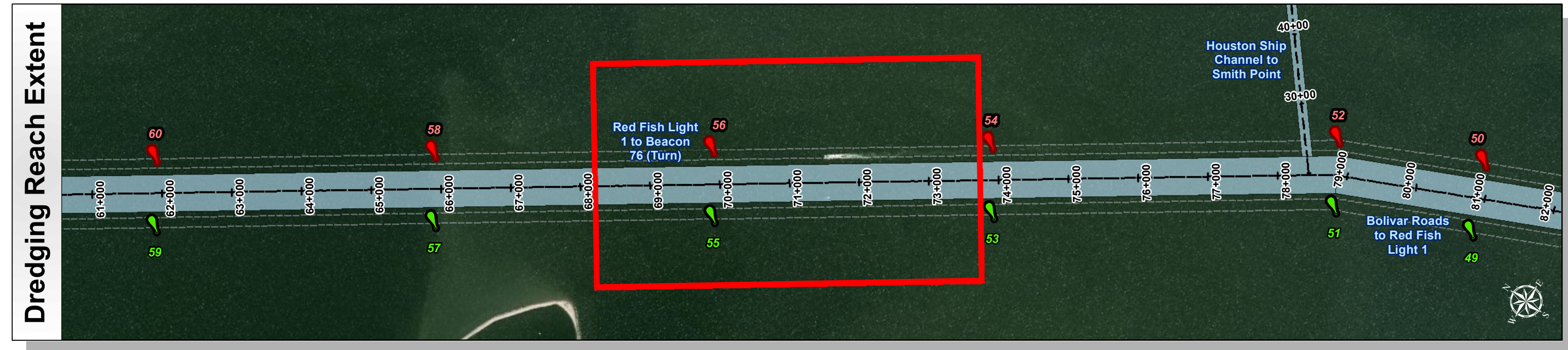
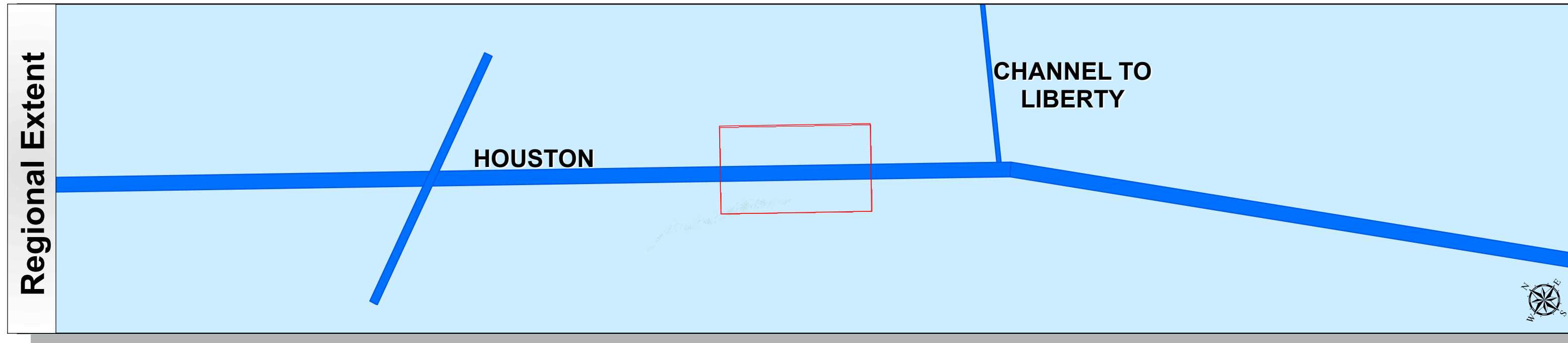
HYDROGRAPHIC SURVEY
U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
GALVESTON, TEXAS

Station: 78+844 to 30+091
HOUSTON
HOUSTON, TEXAS

Houston Ship Channel: Red Fish Light 1 to Beacon 76 (Turn)



U.S. Army Corps of Engineers
Galveston District



Channel Features

- Channel Toe
- Channel Center Line
- Channel Station Lines
- Channel Dimensions

Aids to Navigation

- Green Side Aids
- Red Side Aids
- Lights

MLLW

0 - 30	30 - 35	35 - 40	40 - 42	42 - 44	44 - 46	46 - 48	48 - 50	< 50
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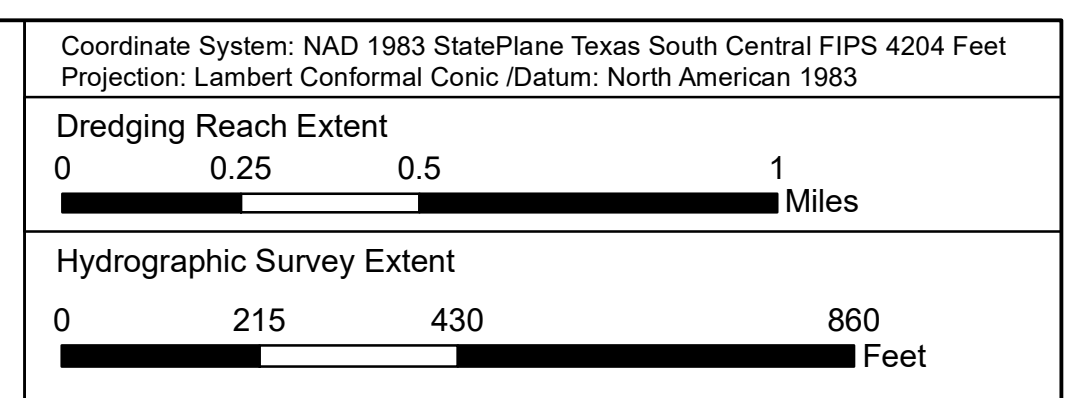
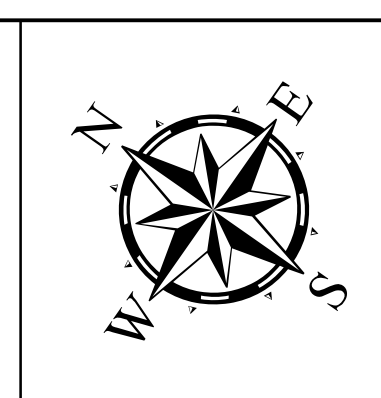
NOAA Bathymetry (DREDGING REACH EXTENT)

0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 50
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NOTES:

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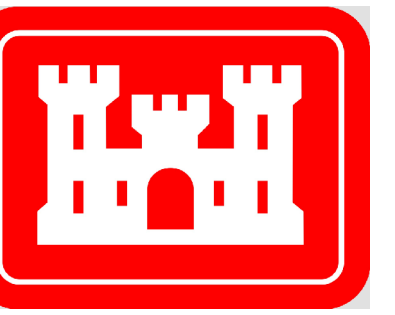


Survey Date(s): 07 October 2019	Authorized Depth: -46ft.
Page: 12 of 61	Side Slope Ratio: (Rise : Run)
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Scale: 1:2,500	Print Date: 1/8/2020
Mapped by: m3odmnm	
Additional Info:	

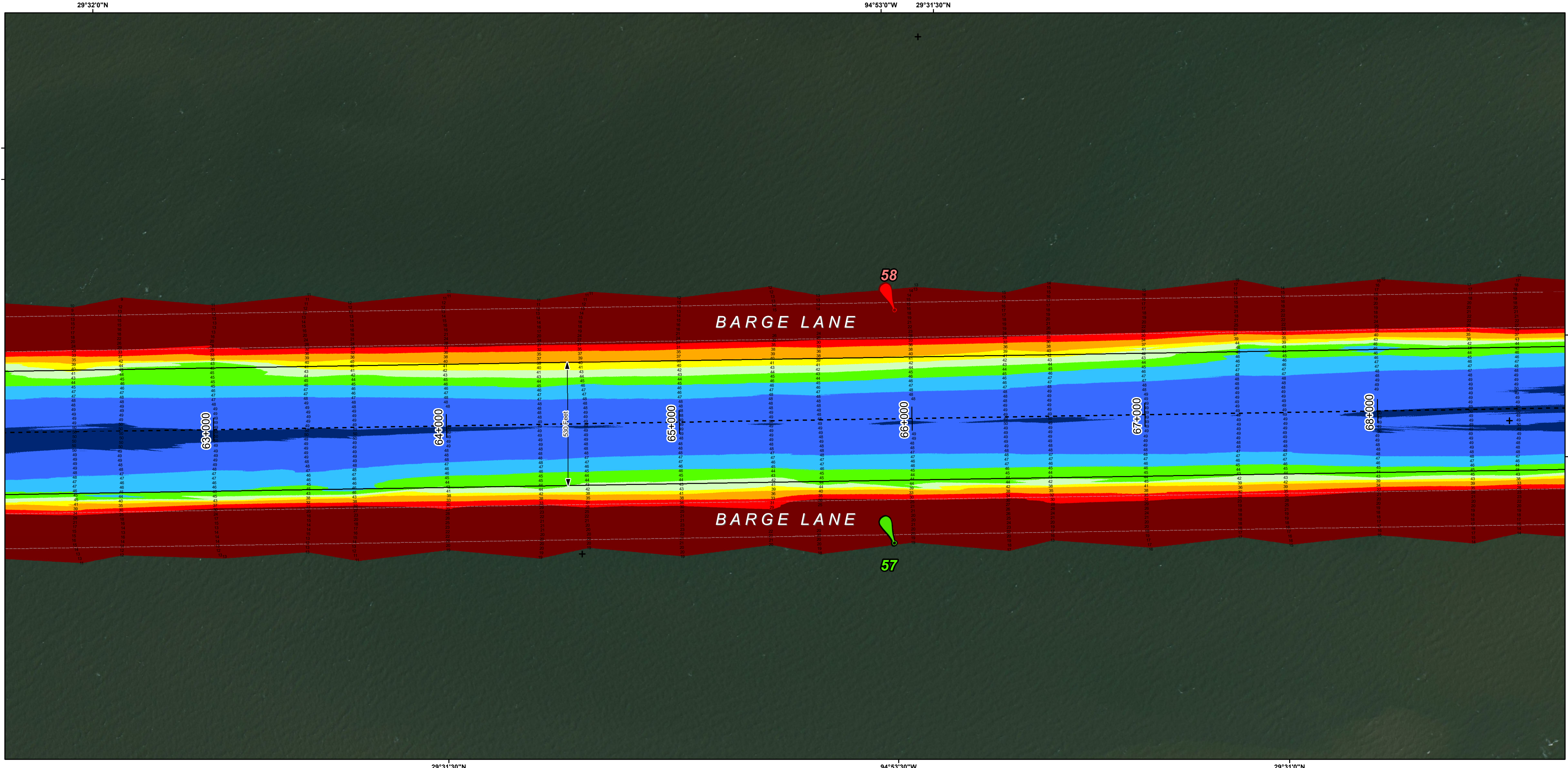
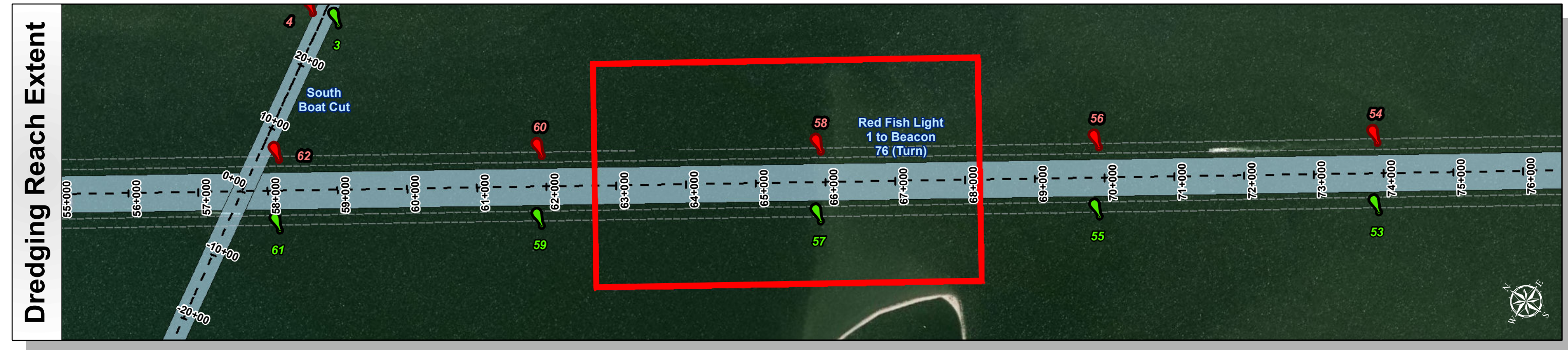
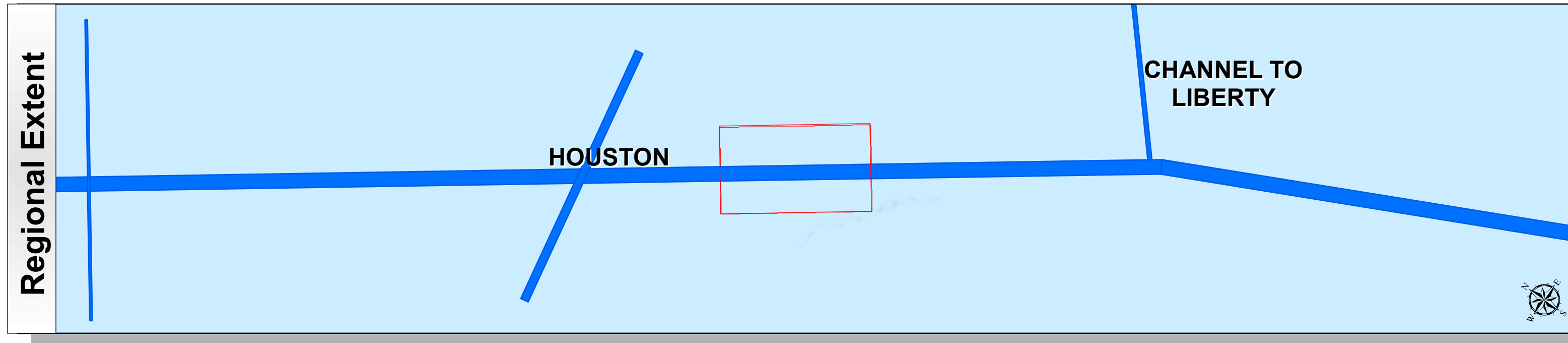
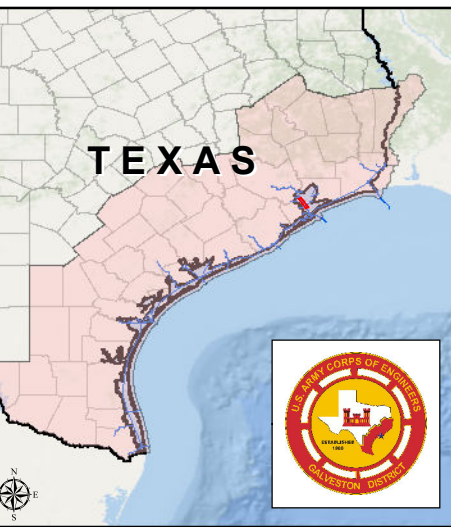
HYDROGRAPHIC SURVEY
U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
GALVESTON, TEXAS

Station: 78+844 to 30+091
HOUSTON
HOUSTON, TEXAS

Houston Ship Channel: Red Fish Light 1 to Beacon 76 (Turn)



U.S. Army Corps of Engineers
Galveston District



Channel Features	Aids to Navigation	MLLW
— Channel Toe	Green Side Aids	
- - - Channel Center Line	Red Side Aids	0 - 30
— Channel Station Lines	Lights	30 - 35
↔ Channel Dimensions		35 - 40
		40 - 42
		42 - 44
		44 - 46
		46 - 48
		48 - 50
		< 50
		NOAA Bathymetry (DREDGING REACH EXTENT)
		0 - 10
		10 - 15
		15 - 20
		20 - 25
		25 - 30
		30 - 50

NOTES:

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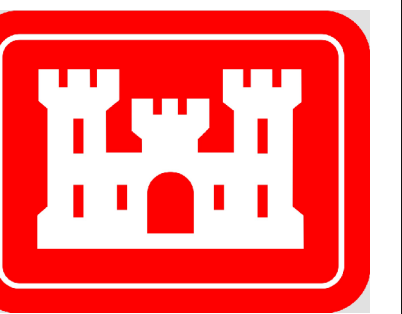
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Dredging Reach Extent	0 0.25 0.5 1 Miles
Hydrographic Survey Extent	0 215 430 860 Feet

Survey Date(s): 07 October 2019	Authorized Depth: -46ft.
Page: 13 of 61	Side Slope Ratio: (Rise : Run)
Scale: 1:2,500	Additional Imagery: © DigitalGlobe Inc.
Mapped by: m3odmmg	Print Date: 1/8/2020
Additional Info:	

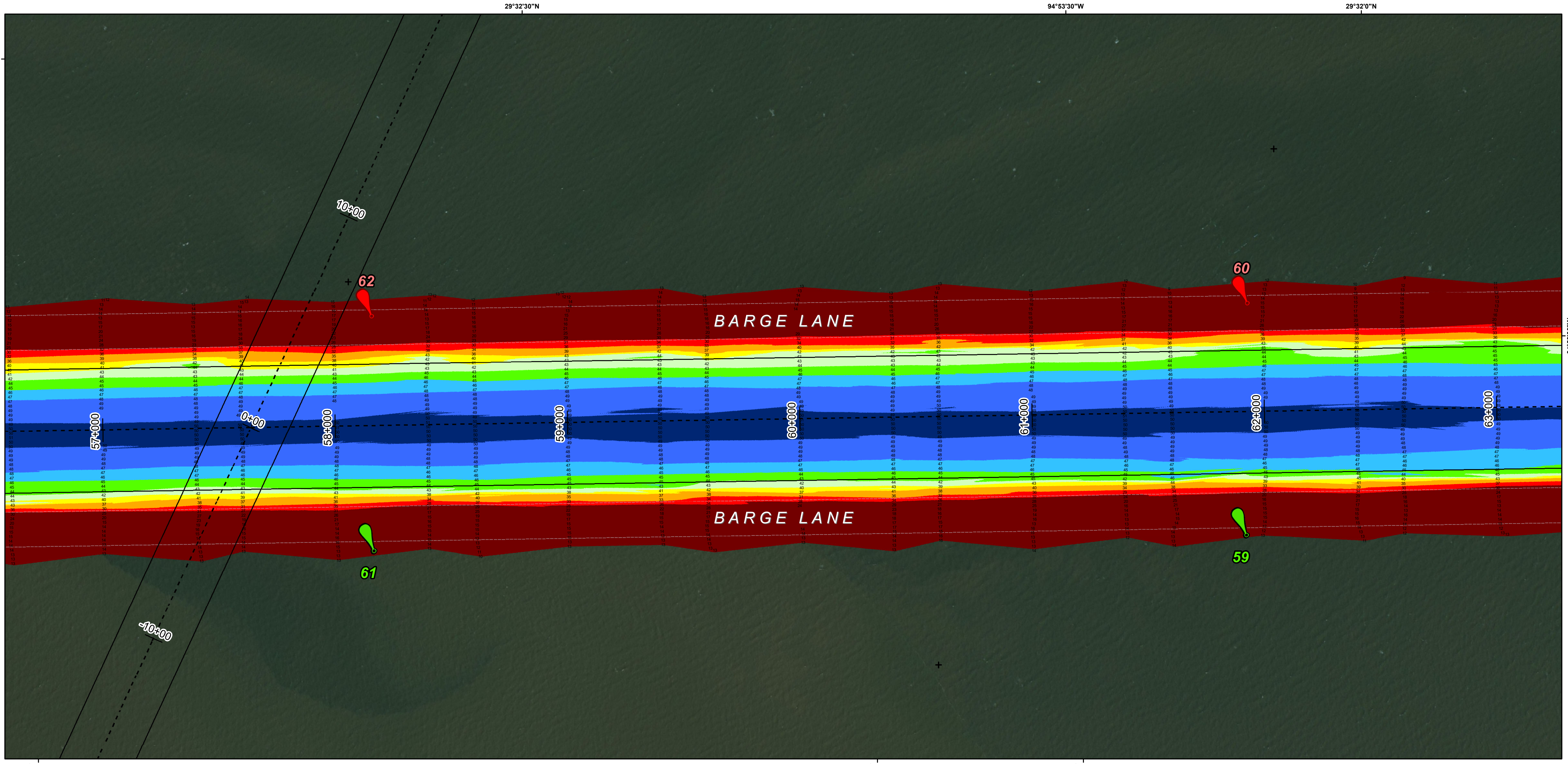
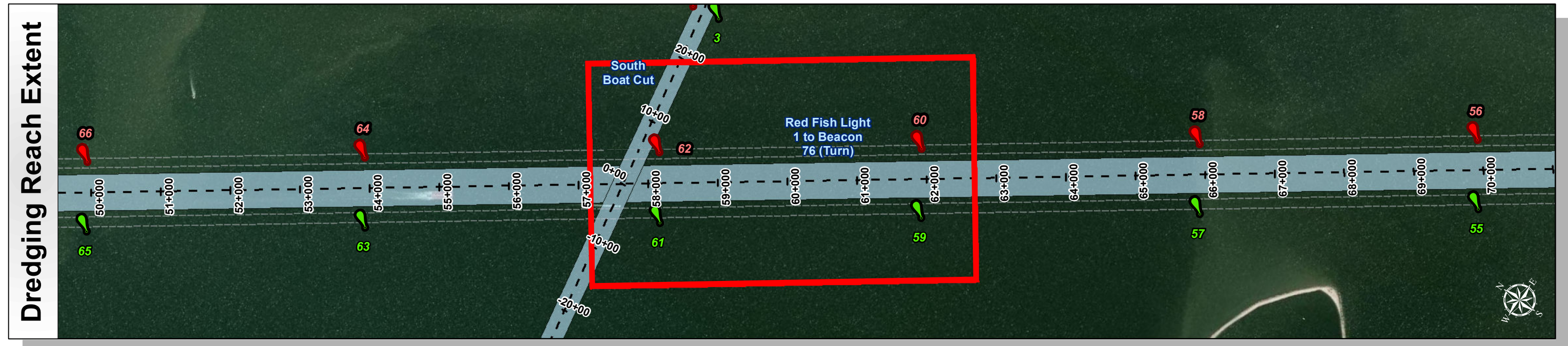
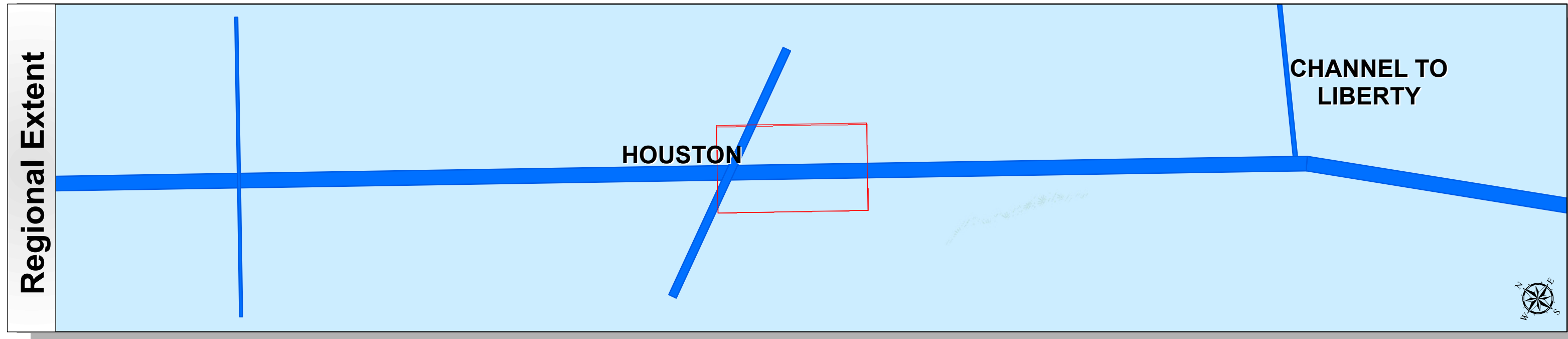
HYDROGRAPHIC SURVEY
U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
GALVESTON, TEXAS

Station: 78+844 to 30+091
HOUSTON
HOUSTON, TEXAS

Houston Ship Channel: Red Fish Light 1 to Beacon 76 (Turn)



U.S. Army Corps of Engineers
Galveston District



Survey Date(s): 07 October 2019	Authorized Depth: -46ft.
Page: 14 of 61	Side Slope Ratio: (Rise : Run)
Scale: 1:2,500	Additional Imagery: © DigitalGlobe Inc.
Mapped by: m3odmm	Print Date: 1/8/2020
Additional Info:	

Channel Features

- Channel Toe
- Channel Center Line
- Channel Station Lines
- Channel Dimensions

Aids to Navigation

- Green Side Aids
- Red Side Aids
- Lights

MLLW

0 - 30 30 - 35 35 - 40 40 - 42 42 - 44 44 - 46 46 - 48 48 - 50 < 50

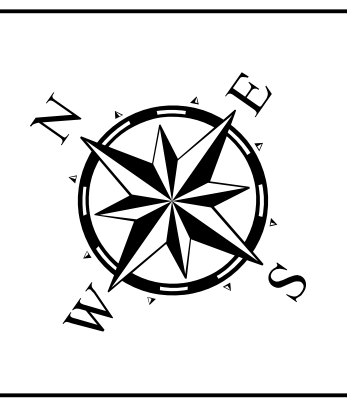
NOAA Bathymetry (DREDGING REACH EXTENT)

0 - 10 10 - 15 15 - 20 20 - 25 25 - 30 30 - 50

NOTES:

1. HORIZONTAL COORDINATES ARE REFERENCED TO TEXAS STATE PLANE COORDINATE SYSTEM, SOUTH CENTRAL ZONE NAD83 US SURVEY FEET.
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Coordinate System: NAD 1983 StatePlane Texas South Central FIPS 4204 Feet
Projection: Lambert Conformal Conic / Datum: North American 1983

Dredging Reach Extent

0 0.25 0.5 1 Miles

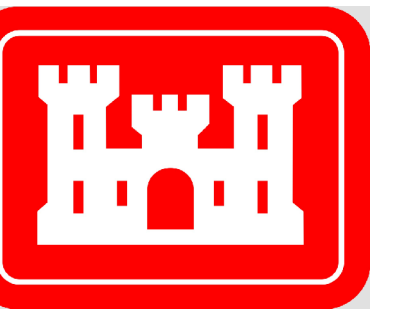
Hydrographic Survey Extent

0 215 430 860 Feet

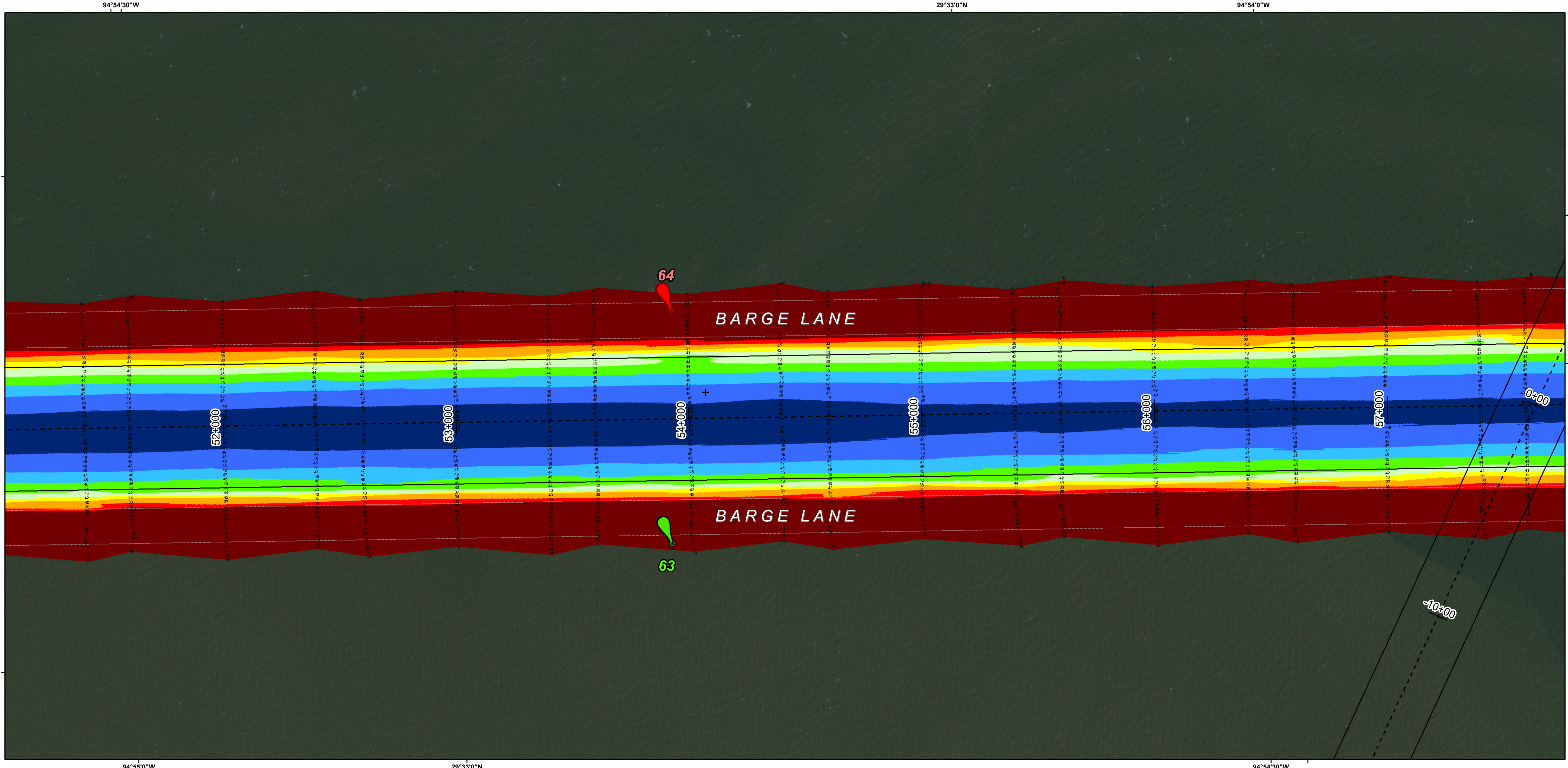
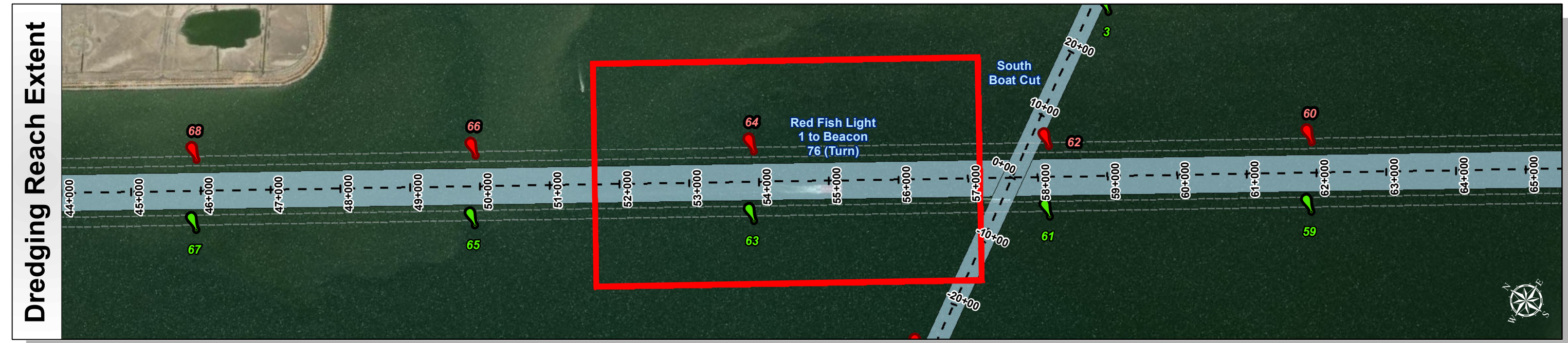
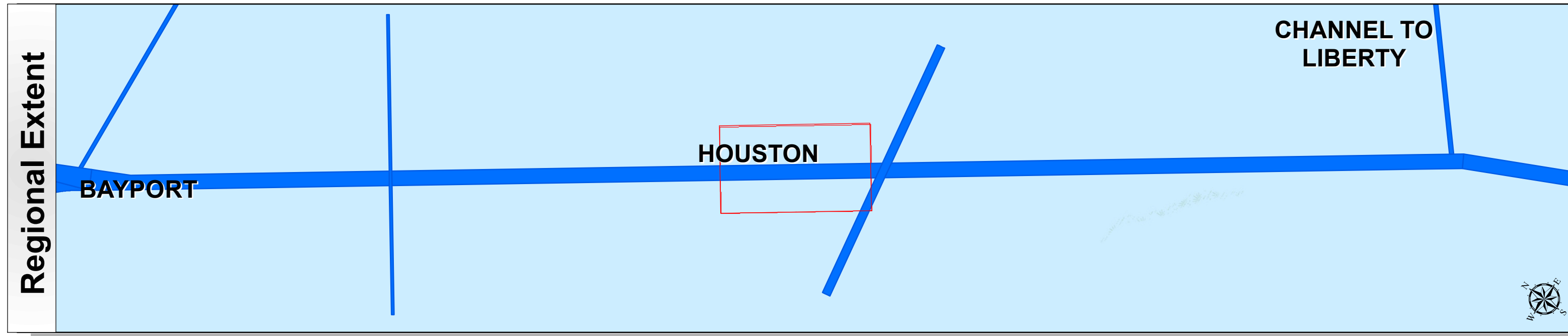
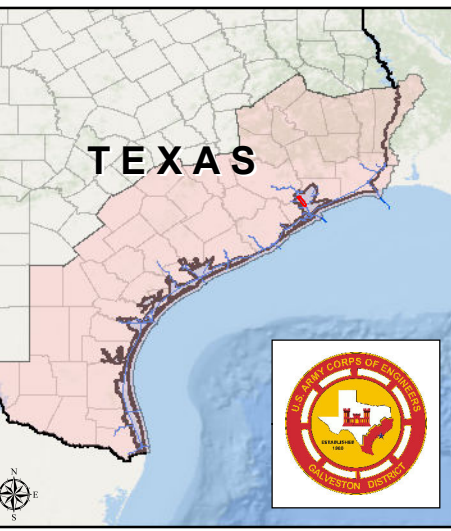
HYDROGRAPHIC SURVEY
U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
GALVESTON, TEXAS

Station: 78+844 to 30+091
HOUSTON
HOUSTON, TEXAS

Houston Ship Channel: Red Fish Light 1 to Beacon 76 (Turn)



U.S. Army Corps of Engineers
Galveston District



Survey Date(s): 07 October 2019	Authorized Depth: -46ft.
Page: 15 of 61	Side Slope Ratio: (Rise : Run)
Scale: 1:2,500	Additional Imagery: © DigitalGlobe Inc.
Mapped by: m3odmnm	Print Date: 1/8/2020
Additional Info:	

Channel Features

- Channel Toe
- Channel Center Line
- Channel Station Lines
- Channel Dimensions

Aids to Navigation

- Green Side Aids
- Red Side Aids
- Lights

MLLW

0 - 30	30 - 35	35 - 40	40 - 42	42 - 44	44 - 46	46 - 48	48 - 50	< 50
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NOAA Bathymetry (DREDGING REACH EXTENT)

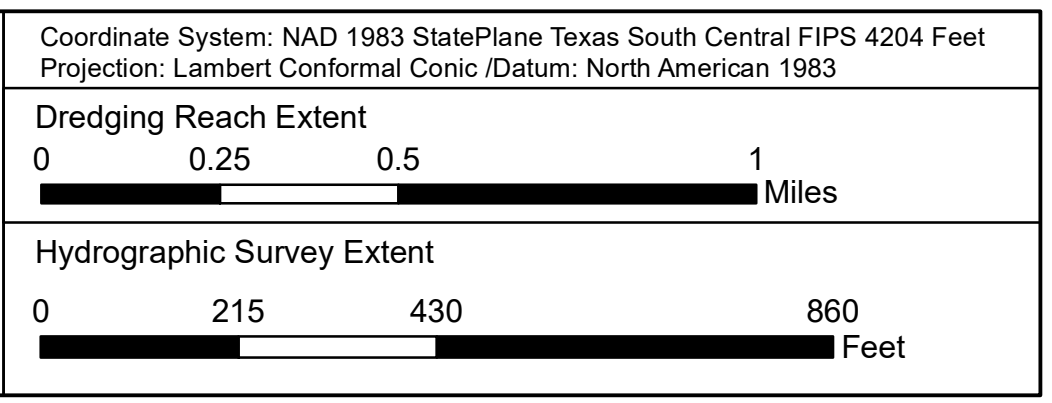
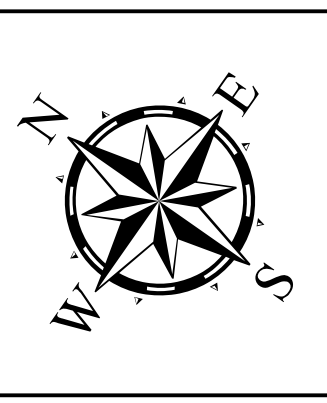
0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 50
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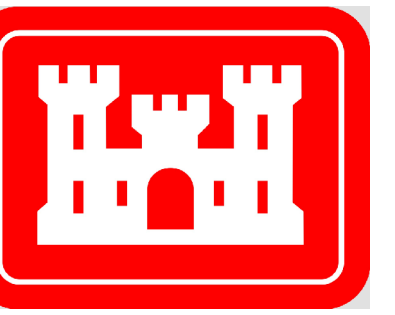
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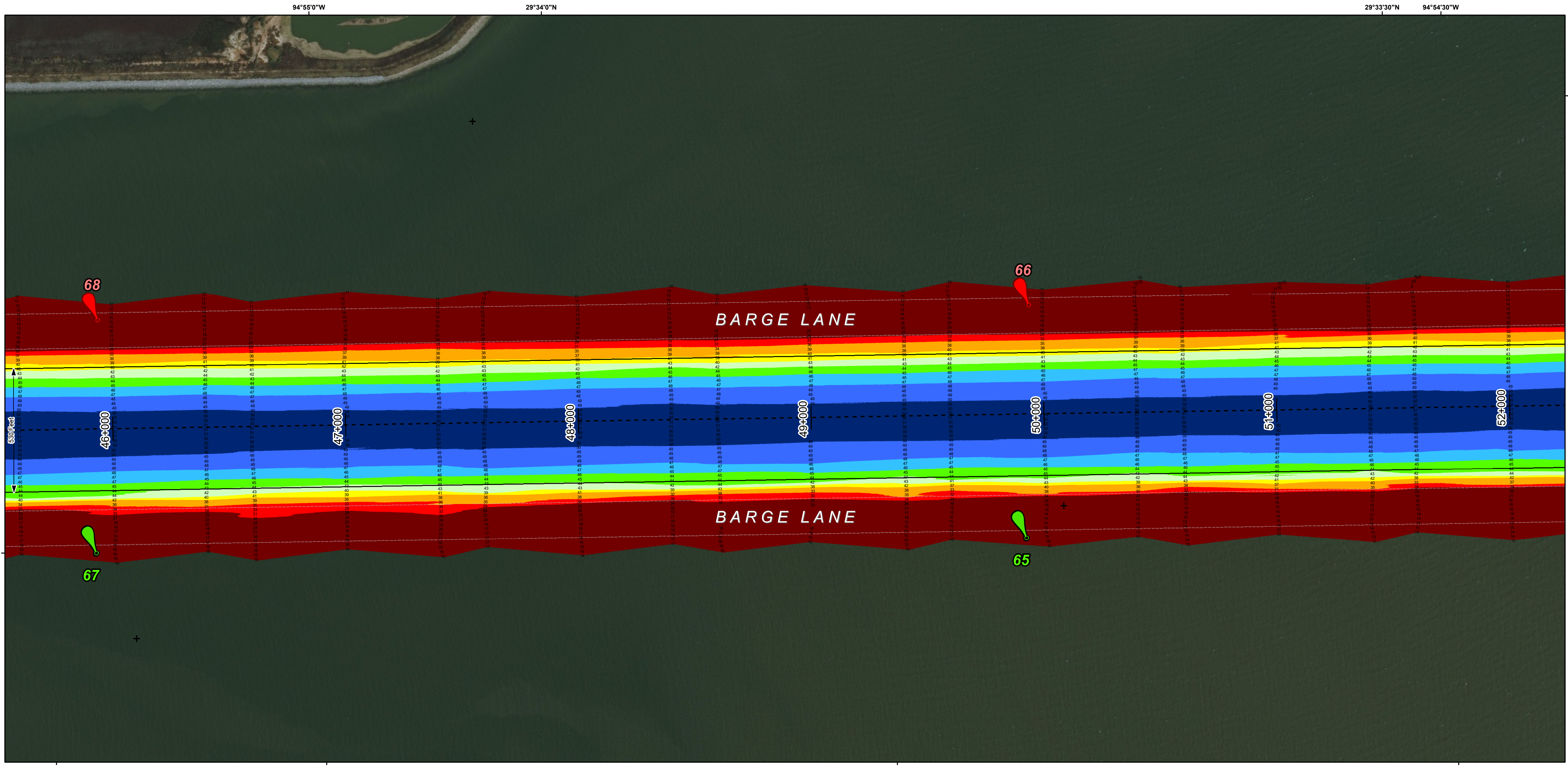
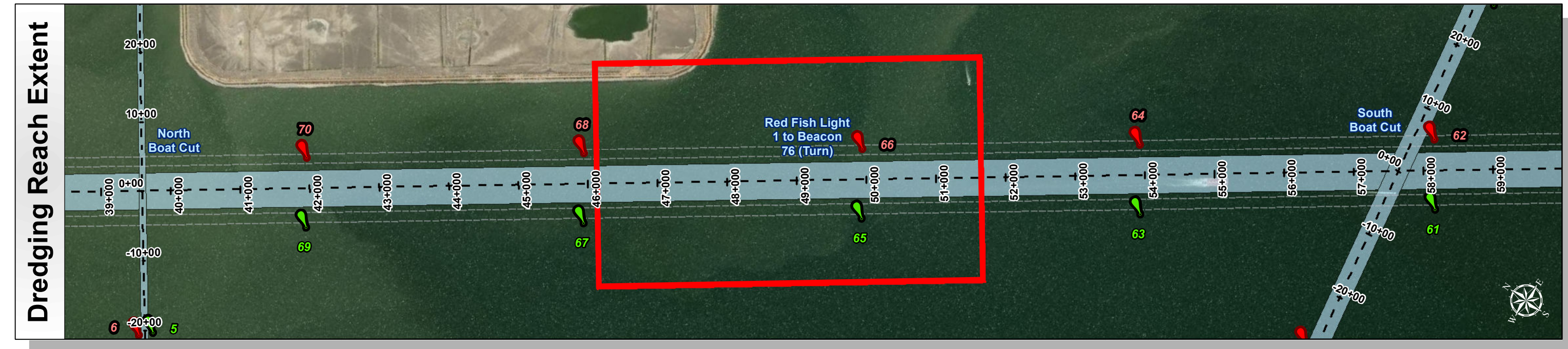
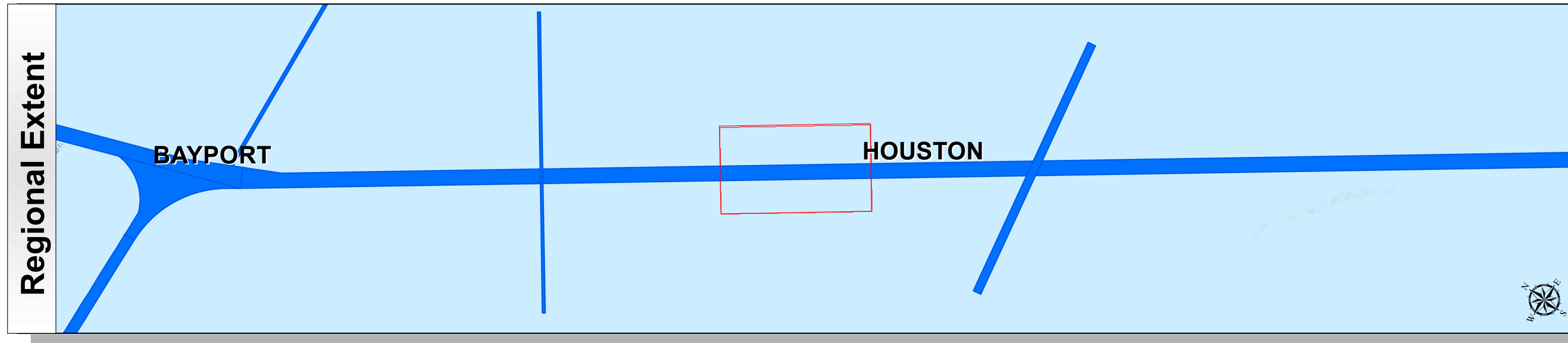
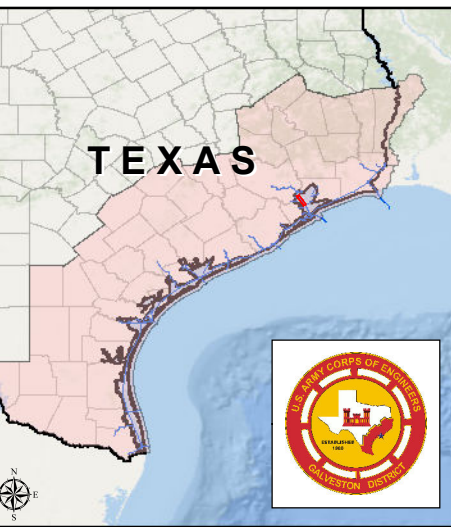
HYDROGRAPHIC SURVEY
U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
GALVESTON, TEXAS

Station: 78+844 to 30+091
HOUSTON
HOUSTON, TEXAS

Houston Ship Channel: Red Fish Light 1 to Beacon 76 (Turn)



U.S. Army Corps of Engineers
Galveston District



Survey Date(s): 07 October 2019	Authorized Depth: -46ft.
Page: 16 of 61	Side Slope Ratio: (Rise : Run)
Scale: 1:2,500	Additional Imagery: © DigitalGlobe Inc.
Mapped by: m3odmmg	Print Date: 1/8/2020
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Channel Features

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- Lights

MLLW

0 - 30	30 - 35	35 - 40	40 - 42	42 - 44	44 - 46	46 - 48	48 - 50	< 50
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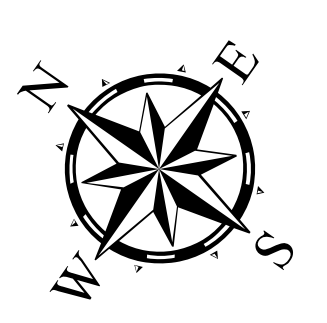
NOAA Bathymetry (DREDGING REACH EXTENT)

0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 50
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Coordinate System: NAD 1983 StatePlane Texas South Central FIPS 4204 Feet
Projection: Lambert Conformal Conic /Datum: North American 1983

Dredging Reach Extent

0 0.25 0.5 1 Miles

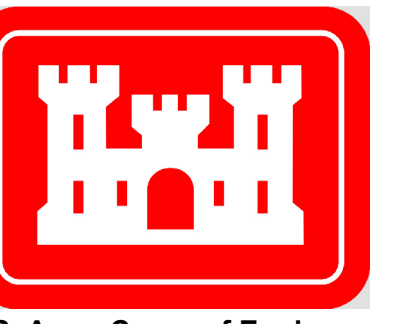
Hydrographic Survey Extent

0 215 430 860 Feet

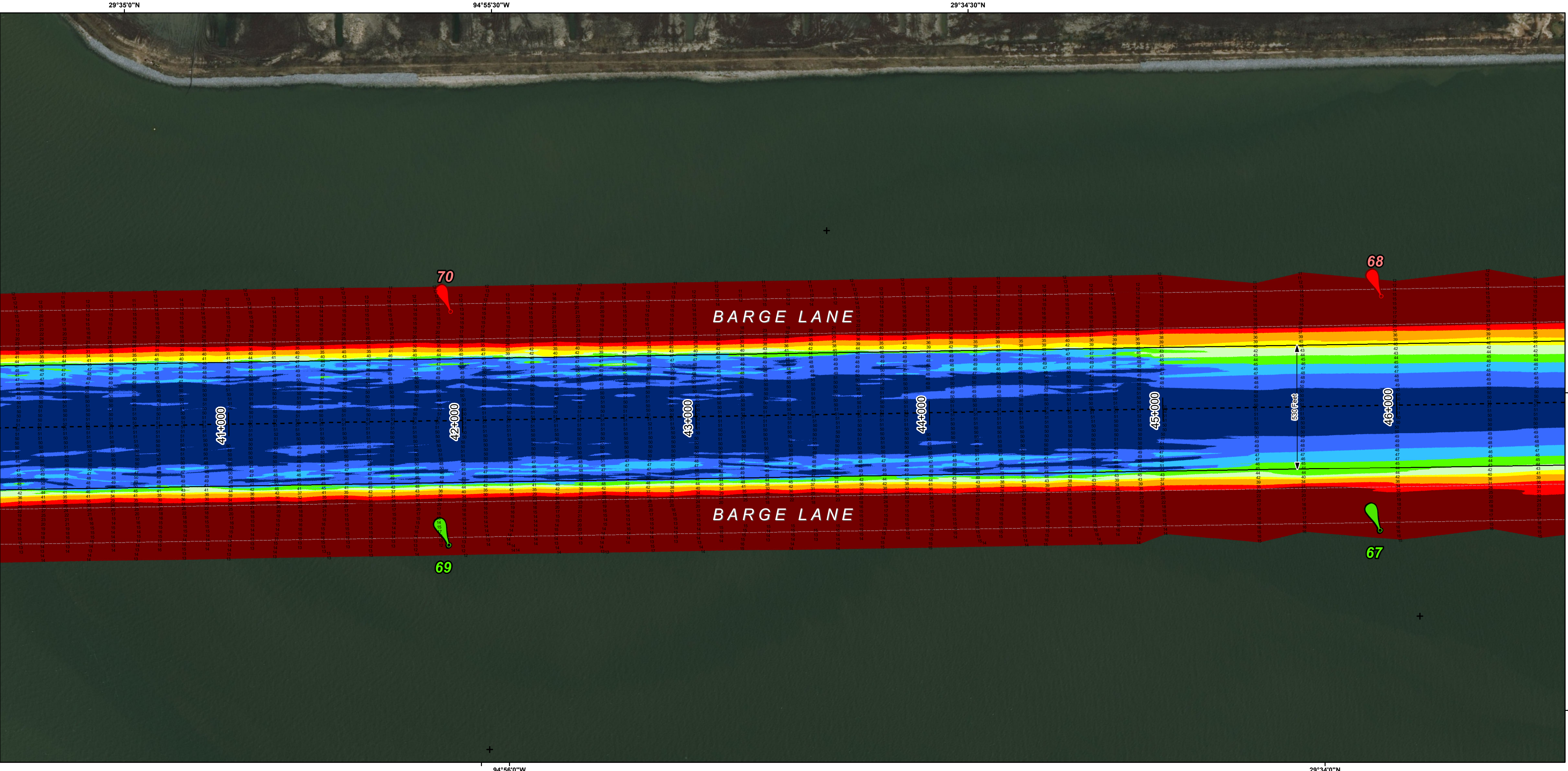
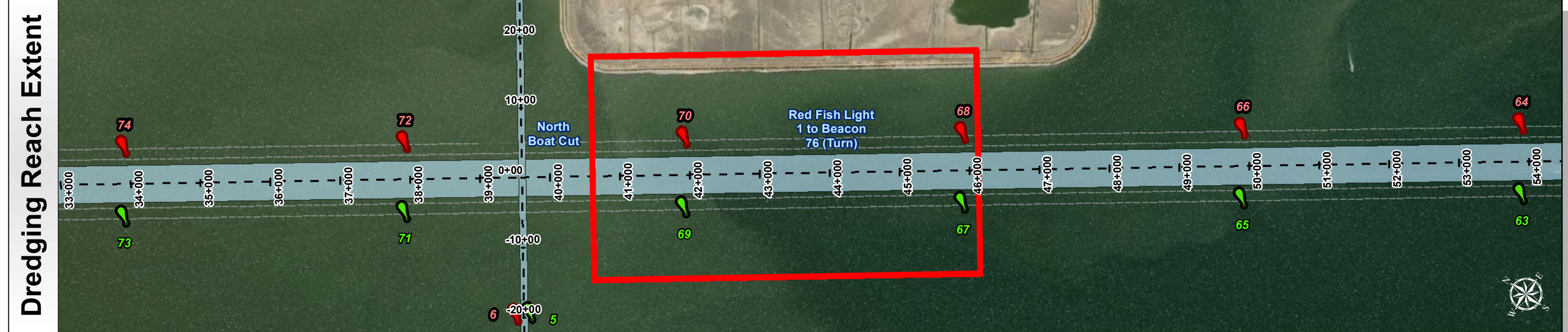
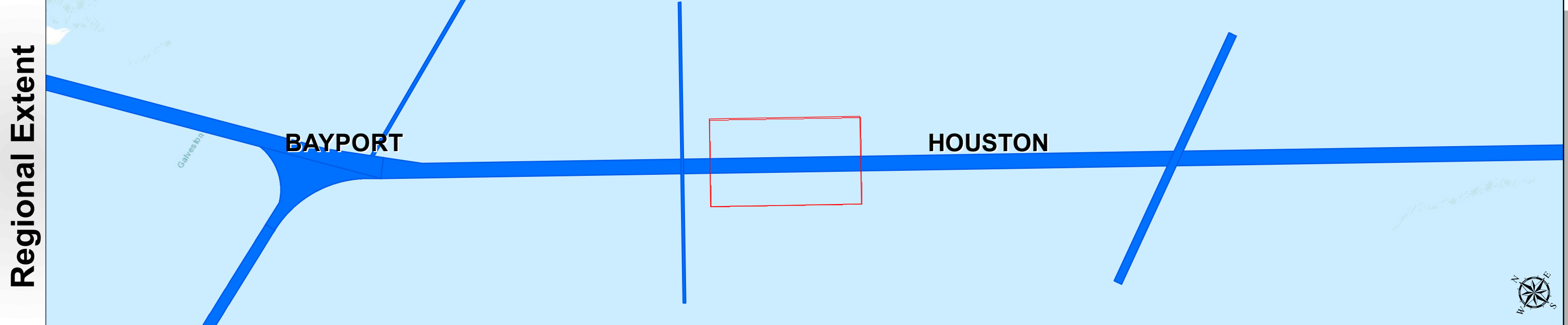
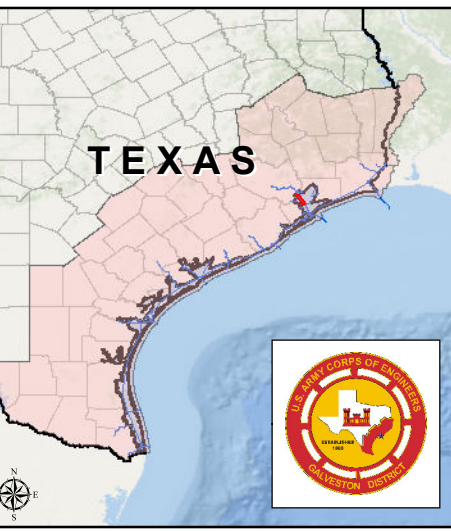
HYDROGRAPHIC SURVEY
U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
GALVESTON, TEXAS

Station: 78+844 to 30+091
HOUSTON
HOUSTON, TEXAS

Houston Ship Channel: Red Fish Light 1 to Beacon 76 (Turn)



U.S. Army Corps of Engineers
Galveston District



Channel Features	Aids to Navigation	MLLW						
<ul style="list-style-type: none"> Channel Toe Channel Center Line Channel Station Lines Channel Dimensions 	<ul style="list-style-type: none"> Green Side Aids Red Side Aids Lights 	<p>NOAA Bathymetry (DREDGING REACH EXTENT)</p> <table border="1"> <tr> <td>0 - 10</td> <td>10 - 15</td> <td>15 - 20</td> <td>20 - 25</td> <td>25 - 30</td> <td>30 - 50</td> </tr> </table>	0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 50
0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 50			

NOTES:

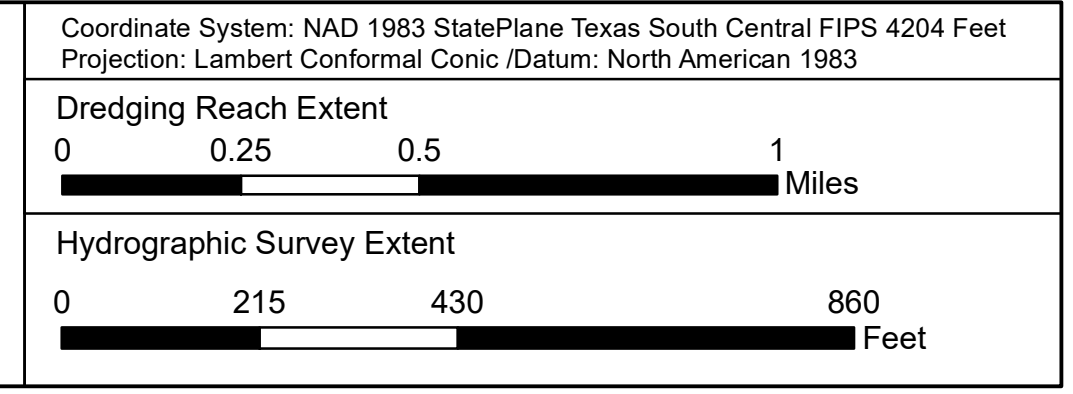
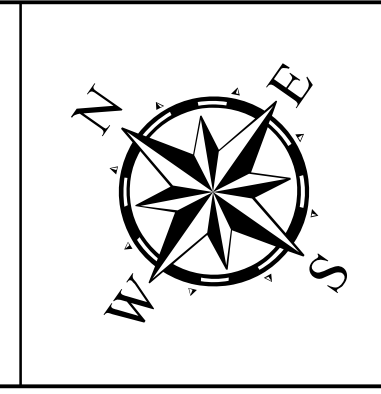
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4. THE INFORMATION DEPICTED ON THIS SURVEY MAP REPRESENTS THE RESULTS OF SURVEYS MADE ON THE DATES INDICATED AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME. THESE CONDITIONS ARE SUBJECT TO RAPID CHANGE DUE TO SHOALING EVENTS. A PRUDENT MARINER SHOULD NOT RELY EXCLUSIVELY ON THE INFORMATION PROVIDED HERE. REQUIRED BY 33 CFR 209.325

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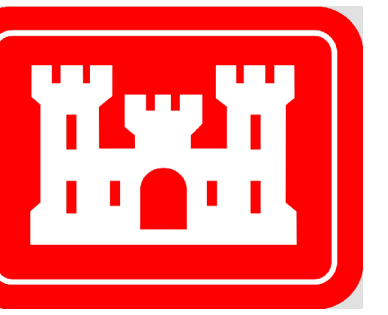


Survey Date(s): 07 October 2019	Authorized Depth: -46ft.
Page: 17 of 61	Side Slope Ratio: (Rise : Run)
Scale: 1:2,500	Additional Imagery: © DigitalGlobe Inc.
Mapped by: m3odmnm	Print Date: 1/8/2020
Additional Info:	

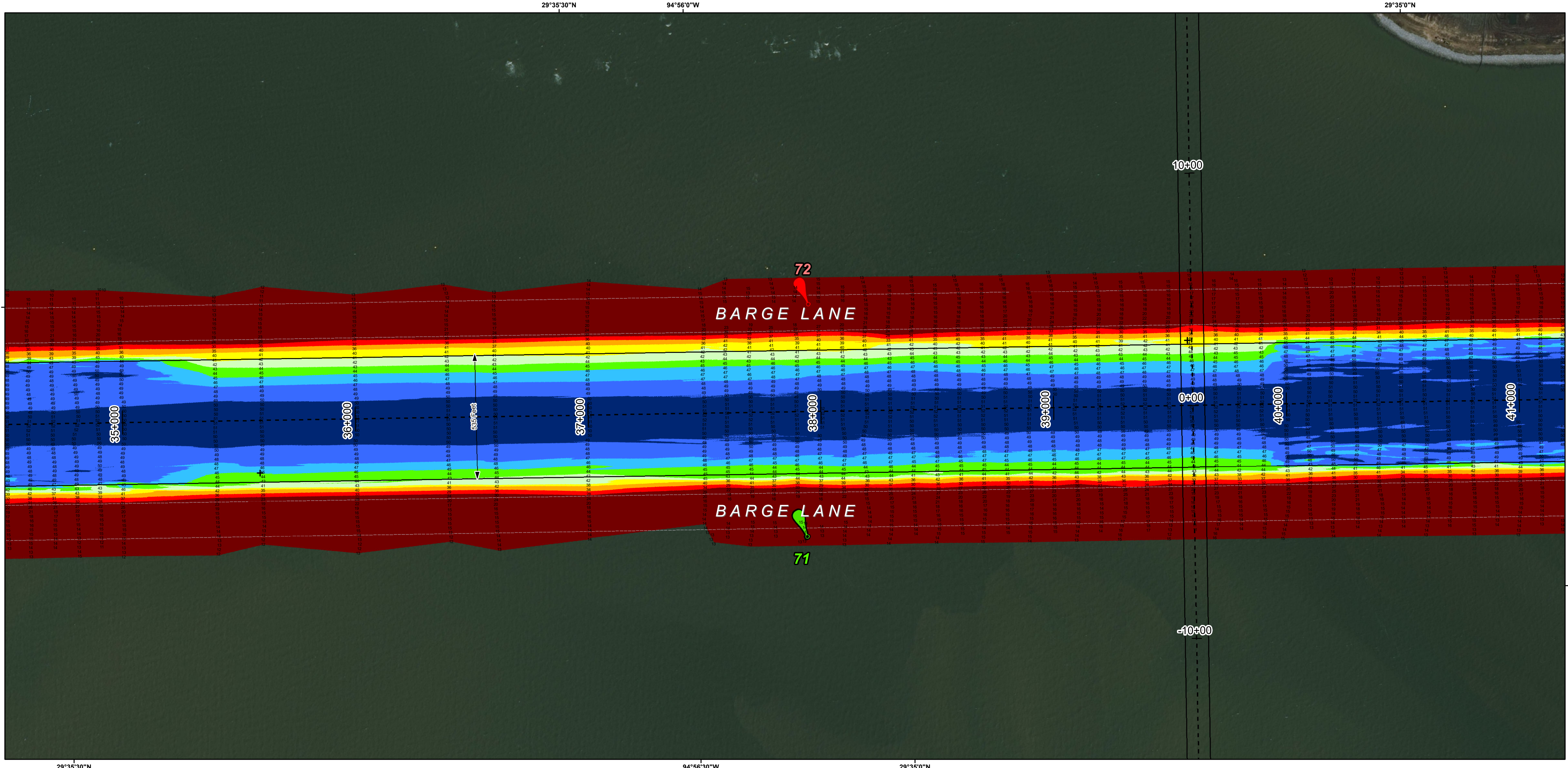
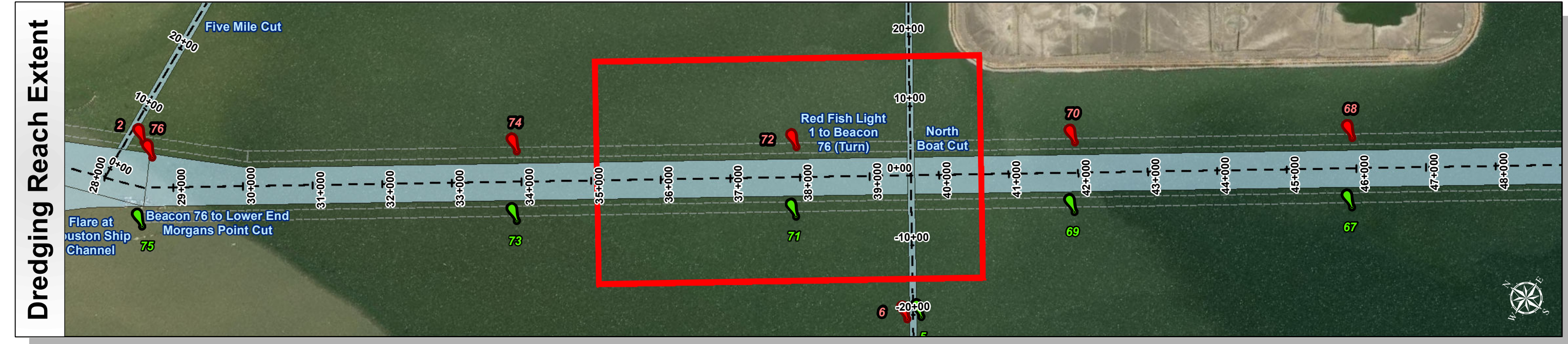
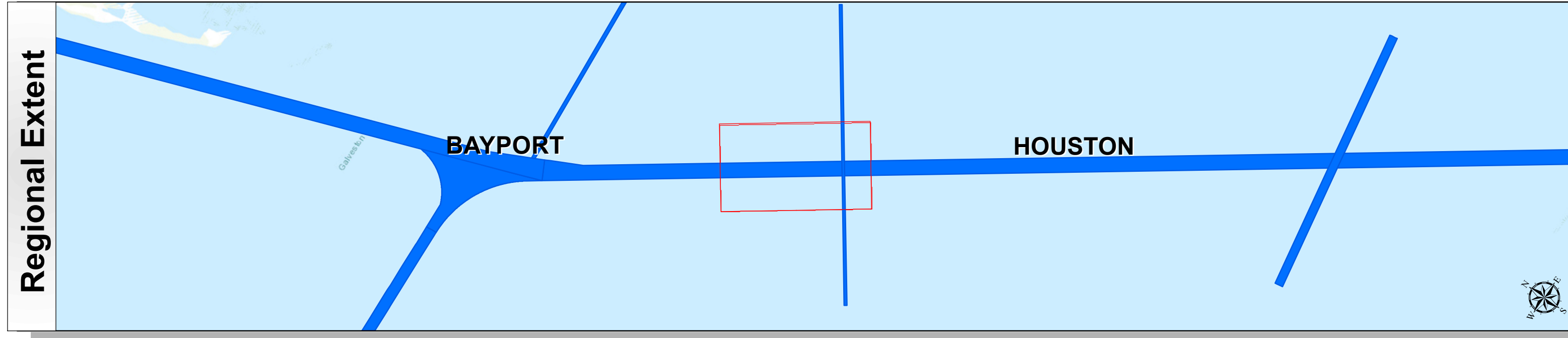
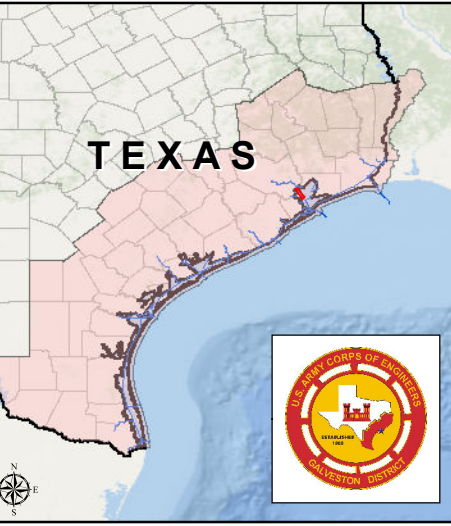
HYDROGRAPHIC SURVEY
U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
GALVESTON, TEXAS

Station: 78+844 to 30+091
HOUSTON
HOUSTON, TEXAS

Houston Ship Channel: Red Fish Light 1 to Beacon 76 (Turn)



U.S. Army Corps of Engineers
Galveston District



Channel Features

- Channel Toe
- Channel Center Line
- Channel Station Lines
- Channel Dimensions

Aids to Navigation

- Green Side Aids
- Red Side Aids
- Lights

MLLW

0 - 30	30 - 35	35 - 40	40 - 42	42 - 44	44 - 46	46 - 48	48 - 50	< 50
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NOAA Bathymetry (DREDGING REACH EXTENT)

0 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 50
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Projection: Lambert Conformal Conic /Datum: North American 1983

Dredging Reach Extent

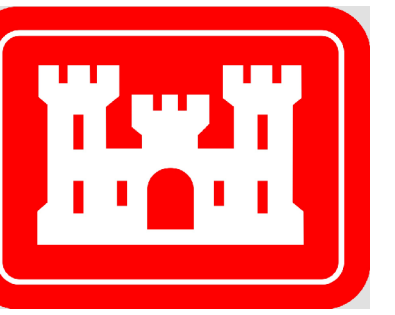
Hydrographic Survey Extent

Survey Date(s): 07 October 2019	Authorized Depth: -46ft.
Page: 18 of 61	Side Slope Ratio: (Rise : Run)
Scale: 1:2,500	Additional Imagery: © DigitalGlobe Inc.
Mapped by: m3odmnm	Print Date: 1/8/2020
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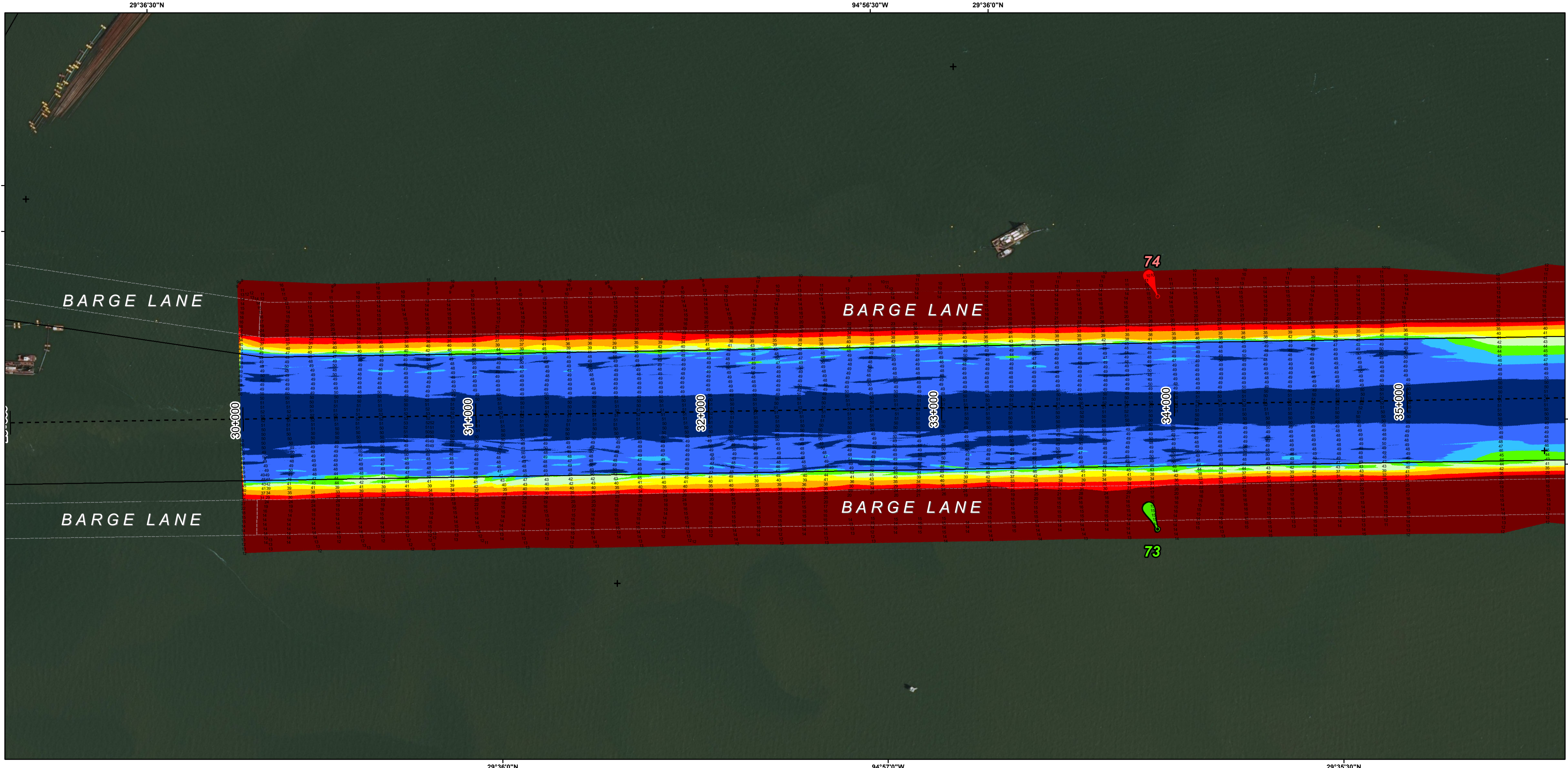
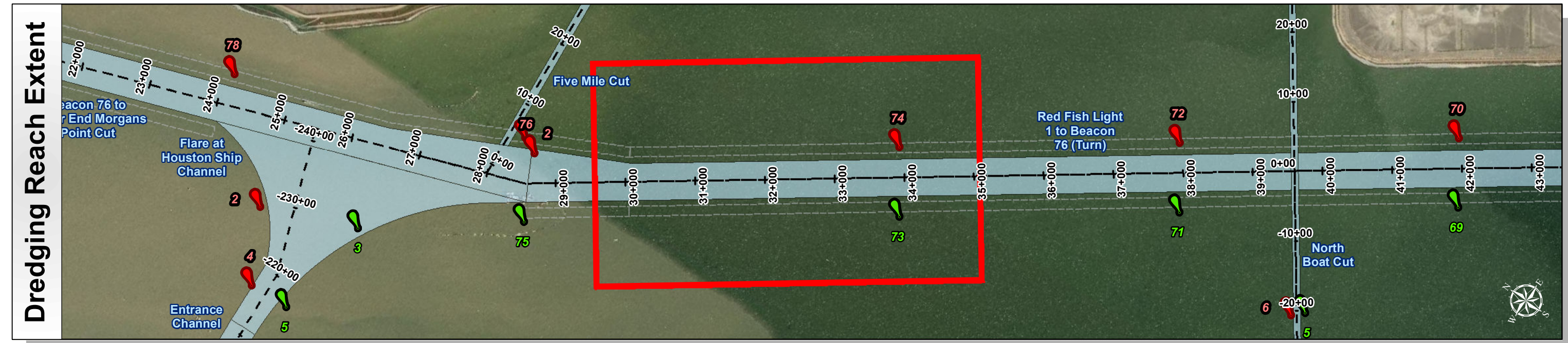
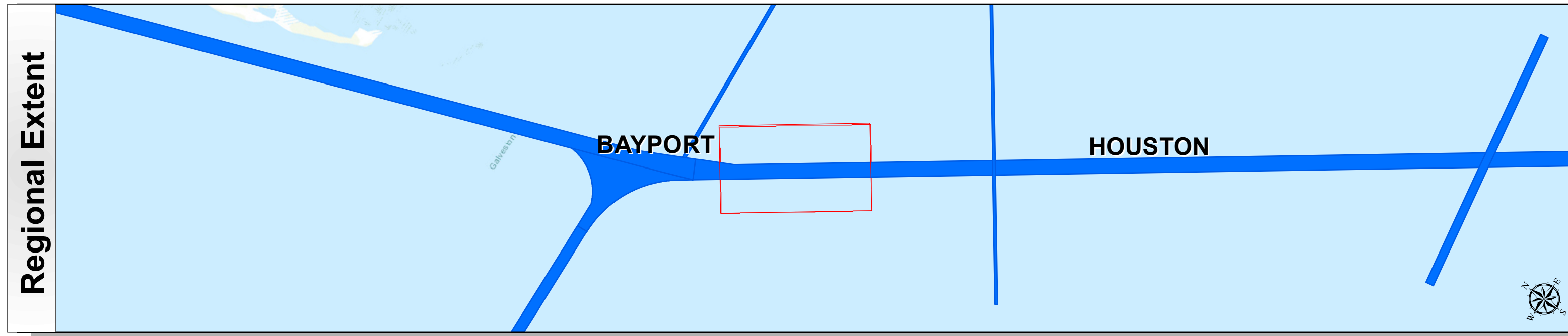
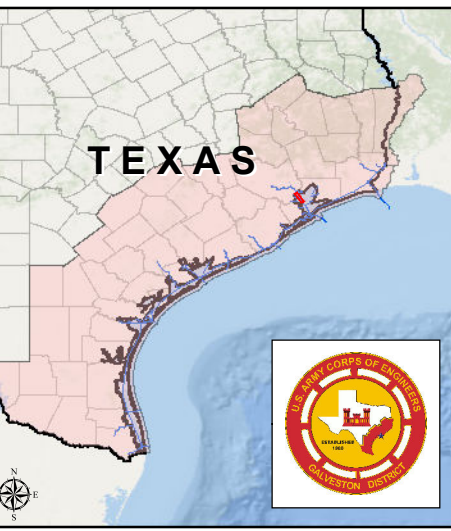
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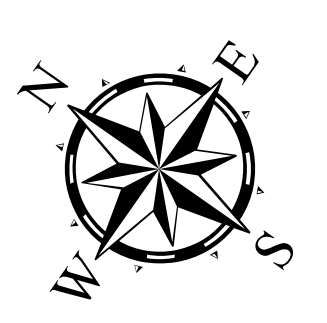
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