

LEGEND

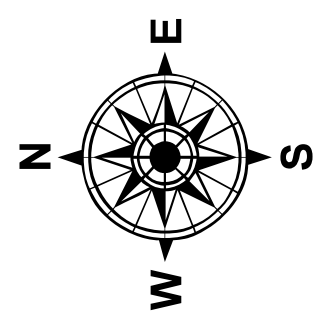
- Federal Navigation Channel
- Cable or Pipe Areas
- - - Channel Center Line
- Contour Line
- ⊗ Obstruction Point
- ⊗ Fixed Navigation Aids
- Red Navigation Buoy
- Green Navigation Buoy
- Shoaling Area
- Shoalest Sounding**

** Shoalest Sounding per Quarter per Reach

GRAPHIC SCALE

1" = 100'

0 100 200 Feet



Notes:
 Horizontal Datum: Rhode Island, RI-3800
 Distance Units: U.S. Survey Feet
 Vertical Datum: MLLW
 Depth Units: U.S. Survey Feet
 Vessel Name: CELESTIAL
 Sonar System: R2 Sonic 2024 (Multibeam Sonar)
 Sounding Frequency: 300 kHz
 Survey Method: RTK GPS TIDES
 GPS System: Trimble SPS 855 (RTK)
 RTK Base Station: MTS Smartnet Max
 Software Used: Hypack
 Sounding Sort Distance: 20'
 Field Books: R&H 4485
 Survey No.: RI_05_SEE_20200129_CS_016
 Reference NOAA Chart No.: 13224

General Notes
 The sounding information shown on this map represents the SHOALEST soundings of those obtained from hydrographic surveys conducted during January 2020. The sounding information depicted on this map represents the results of surveys made on the dates indicated and can only be considered as indicating the conditions existing at that time. The positions of aids to navigation were located during survey operations, are provided for information only and should not be used for navigation. Orthomagny is from a variety of sources and dates and is intended to portray general characteristics of the shoreline and other features. Temporal changes may have occurred since this dataset was collected and some parts may no longer be an accurate representation of the conditions. The information depicted on this map should NOT be used to determine volumes as volumes are determined from more sounding information than shown.

Project Remarks
 Marine infrastructure surveyed with Lidar.

Water Level Information
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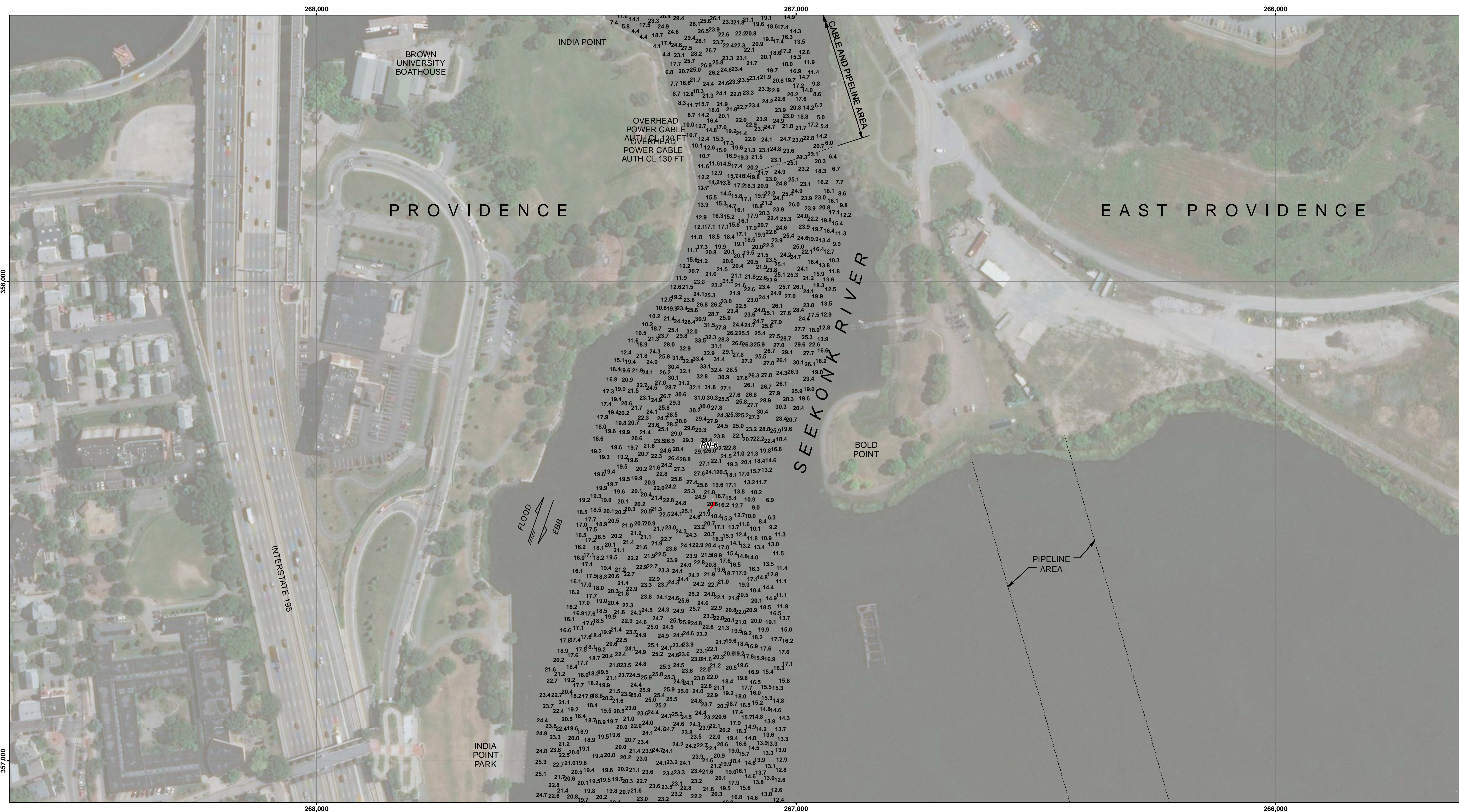
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|---------------------------------|--|----------------------------|--|---|--|
| SURVEYED BY: MAY | | CHECKED BY: ZSM | | ISSUE DATE: 2/27/2020 | |
| SUBMITTED BY: Zhenyao MoXiao | | APPROVED BY: NAE Survey | | NAE DOCUMENT NUMBER: RI_05_SEE_20200129_CS_016 | |
| SIZE: A3/SD | | | | | |

**SEEKONK RIVER
 PAWTUCKET, PROVIDENCE AND
 EAST PROVIDENCE, RHODE ISLAND
 CONDITION SURVEY
 16-FOOT CHANNEL**

File Name: RI_05_SEE_20200129_CS_016

SHEET IDENTIFICATION
 Seekonk River
 Sheet 1 of 10



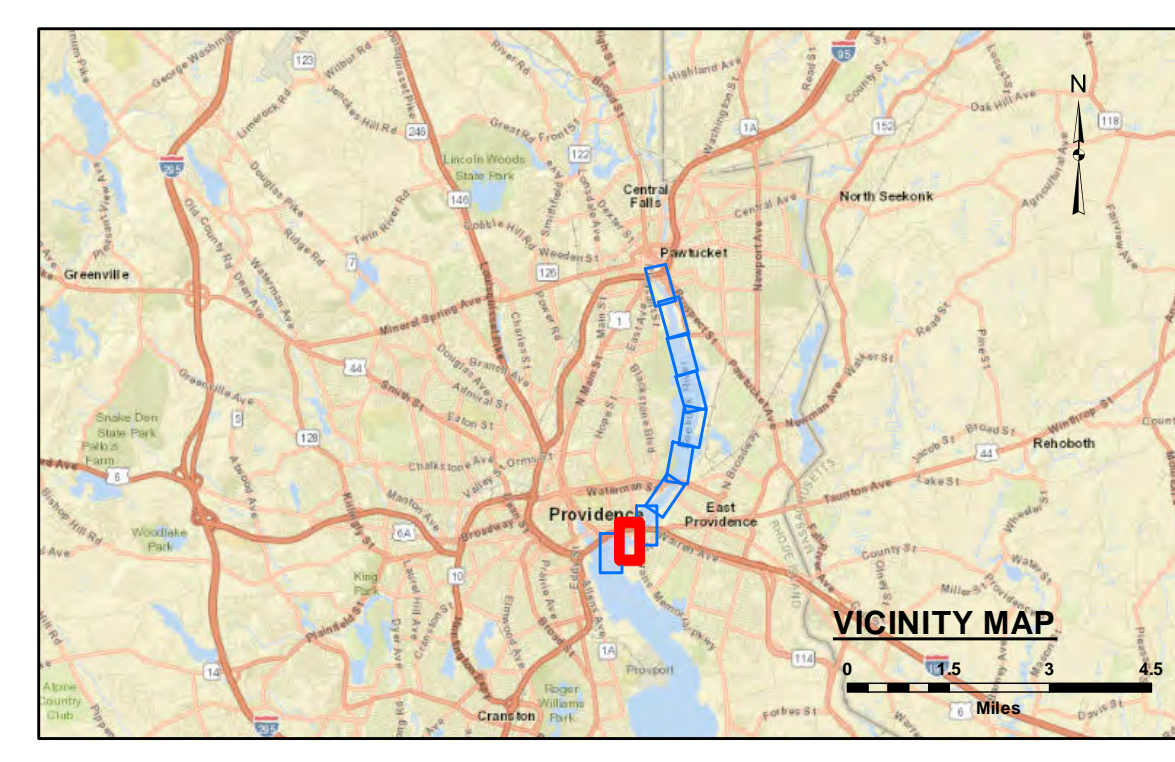
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| | | | | | |
|---|--|---|--|--------------------------|--|
| U.S. ARMY CORPS OF ENGINEERS NEW ENGLAND DISTRICT | | SUBMITTED BY: Zachary McAvoy | | SURVEYED BY: MAV | |
| SEEKONK RIVER PAWTUCKET, PROVIDENCE AND EAST PROVIDENCE, RHODE ISLAND CONDITION SURVEY | | APPROVED BY: NAE Survey | | CHECKED BY: ZSM | |
| 16-FOOT CHANNEL | | FILE NAME: RI_05_SEE_20200129_CS_016 | | ISSUE DATE: 2/27/2020 | |
| SIZE: A3/D3 | | | | | |

Notes:
Horizontal Datum: Rhode Island, RI-3800
Distance Units: U.S. Survey Feet
Vertical Datum: MLLW
Depth Units: U.S. Survey Feet
Vessel Name: CELESTIAL
Sonar System: R2 Sonic 2024 (Multibeam Sonar)
Sounding Frequency: 300 KHz
Survey Method: RTK GPS TIDES
GPS System: Trimble SPS 855 (RTK)
RTK Base Station: MTS Smartnet Max
Software Used: Hypack
Sounding Sort Distance: 20'
Field Books: R&H 4485
Survey No.: RI_05_SEE_20200129_CS_016
Reference NOAA Chart No.: 13224

Project Remarks:
Marine infrastructure surveyed with Lidar.

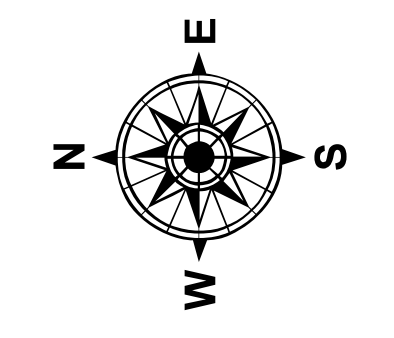


LEGEND

- Federal Navigation Channel
- Cable or Pipe Areas
- - - Channel Center Line
- Contour Line
- ⊗ Obstruction Point
- ⊗ Fixed Navigation Aids
- Red Navigation Buoy
- Green Navigation Buoy
- Shoaling Area
- Shoalest Sounding**

** Shoalest Sounding per Quarter per Reach

GRAPHIC SCALE
1" = 100'
0 100 200 Feet

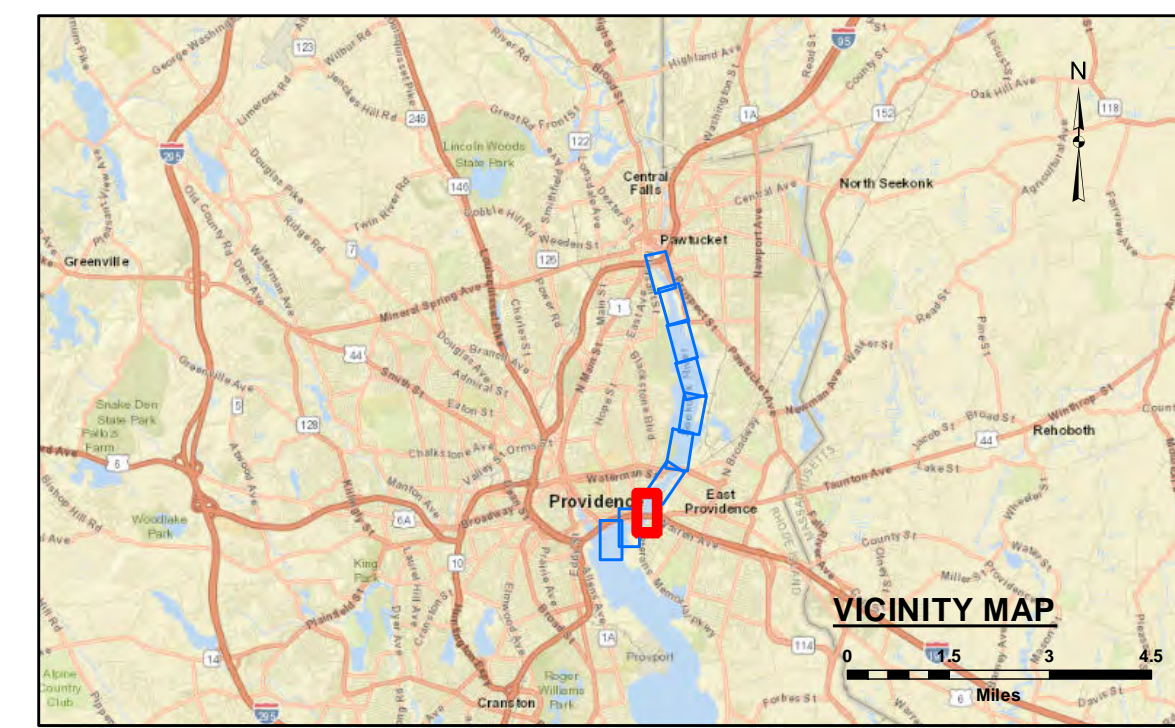
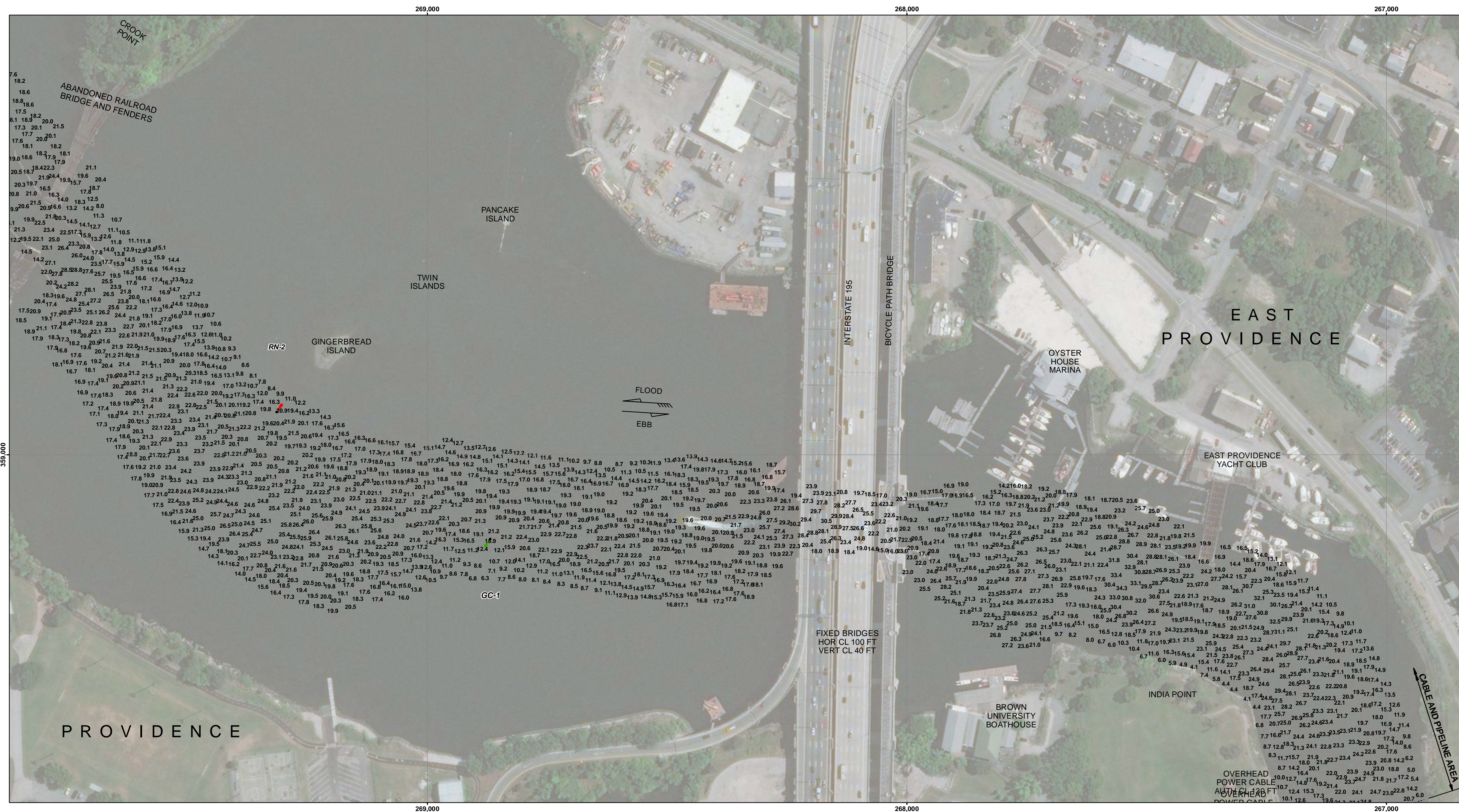


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The information depicted on these charts represents the results of surveys made on the dates indicated, and can only be considered as indicating the conditions existing at that time.

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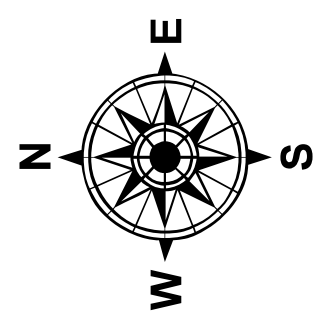
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** Shoalest Sounding per Quarter per Reach

GRAPHIC SCALE

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0 100 200 Feet



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 Depth Units: U.S. Survey Feet
 Vessel Name: CELESTIAL
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 Sounding Frequency: 300 KHz
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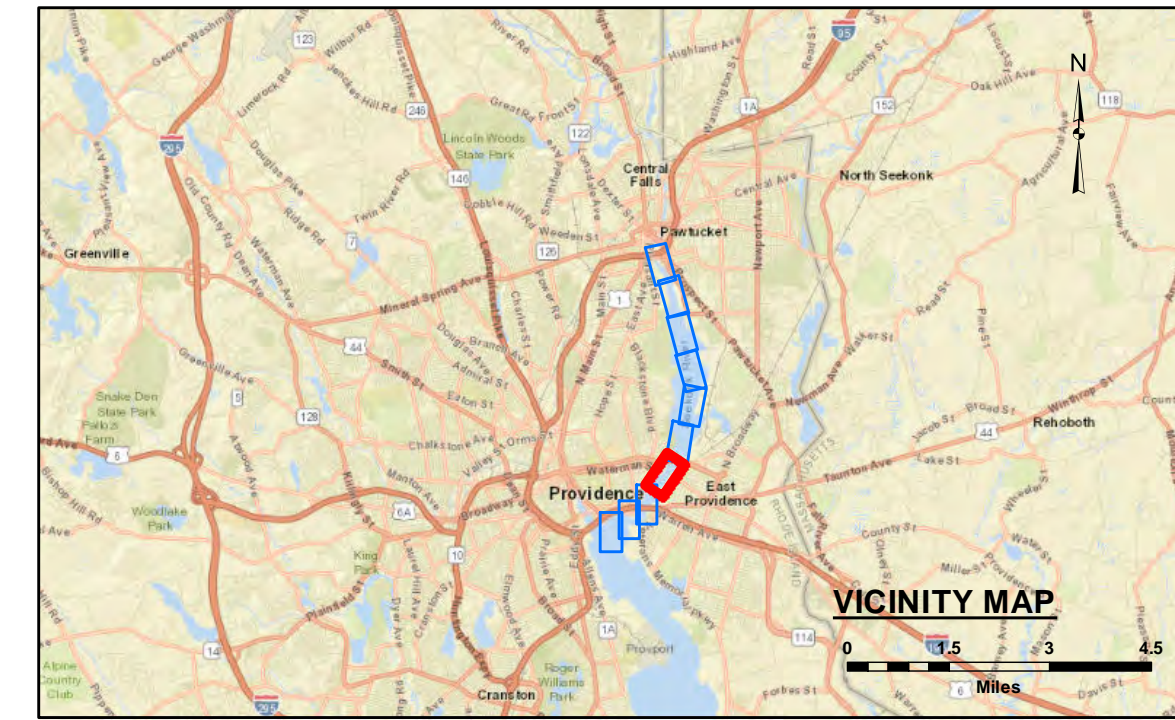
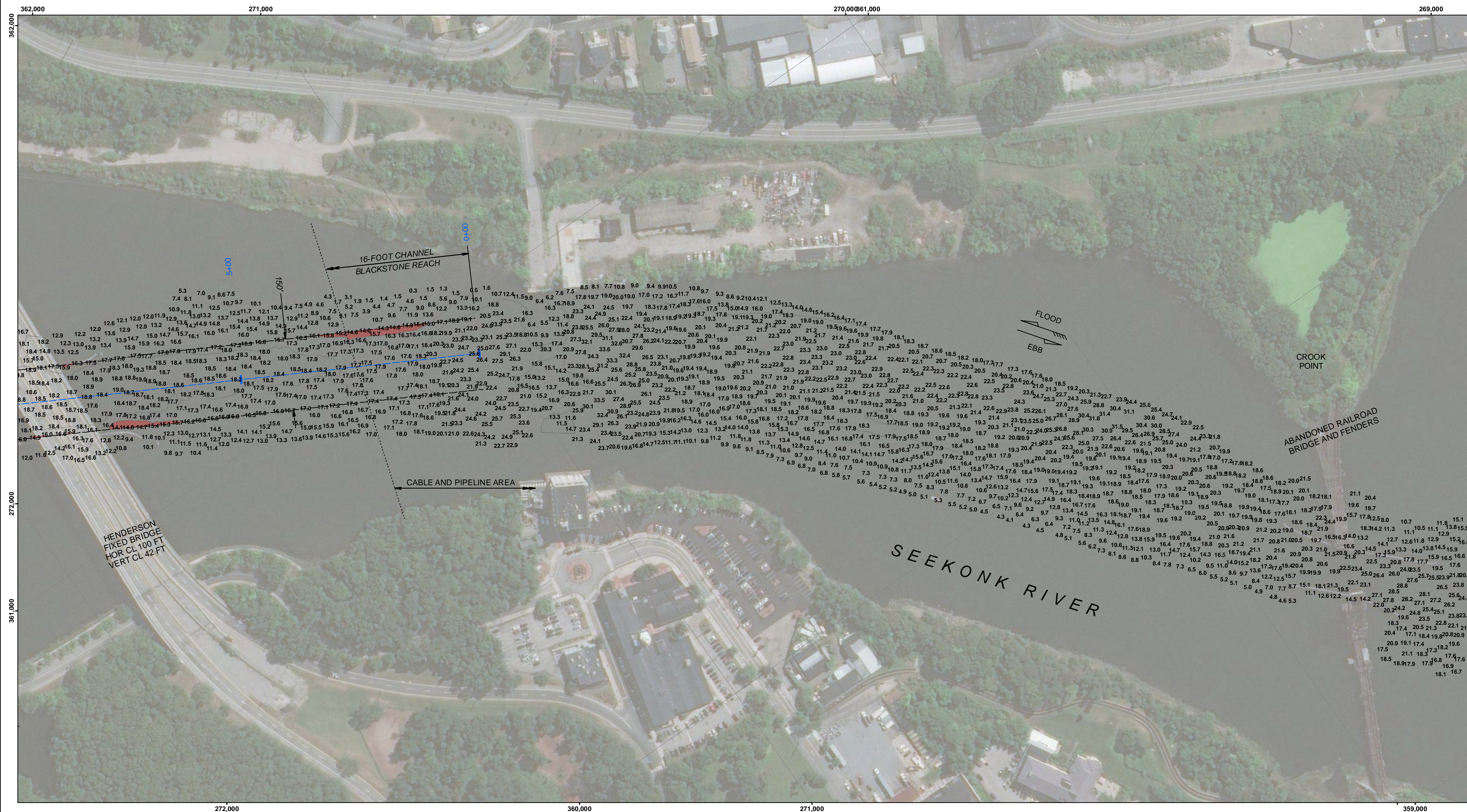
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|---|--|-------------------------|--|
| SUBMITTED BY: Zhenyao Ma | | APPROVED BY: NAE Survey | |
| SURVEYED BY: M/V | | CHECKED BY: ZSM | |
| NEW DOCUMENT: RI_05_SEE_20200129_CS_016 | | ISSUE DATE: 2/27/2020 | |

**SEEKONK RIVER
 PAWTUCKET, PROVIDENCE AND
 EAST PROVIDENCE, RHODE ISLAND
 CONDITION SURVEY
 16-FOOT CHANNEL**

File Name: RI_05_SEE_20200129_CS_016

SHEET IDENTIFICATION
 Seekonk River
 Sheet 3 of 10

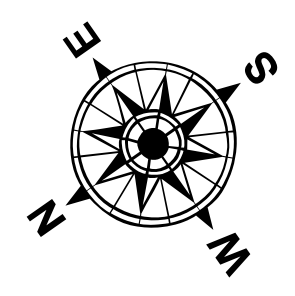


LEGEND

- Federal Navigation Channel
- Cable or Pipe Areas
- Channel Center Line
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- ⊗ Obstruction Point
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- Green Navigation Buoy
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- Shoalest Sounding**

** Shoalest Sounding per Quarter per Reach

GRAPHIC SCALE
1" = 100'
0 100 200 Feet



Notes:
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 Distance Units: U.S. Survey Feet
 Vertical Datum: MLLW
 Depth Units: U.S. Survey Feet
 Vessel Name: CELESTIAL
 Sonar System: R2 Sonic 2024 (Multibeam Sonar)
 Sounding Frequency: 300 KHz
 Survey Method: RTK GPS TIDES
 GPS System: Trimble SPS 855 (RTK)
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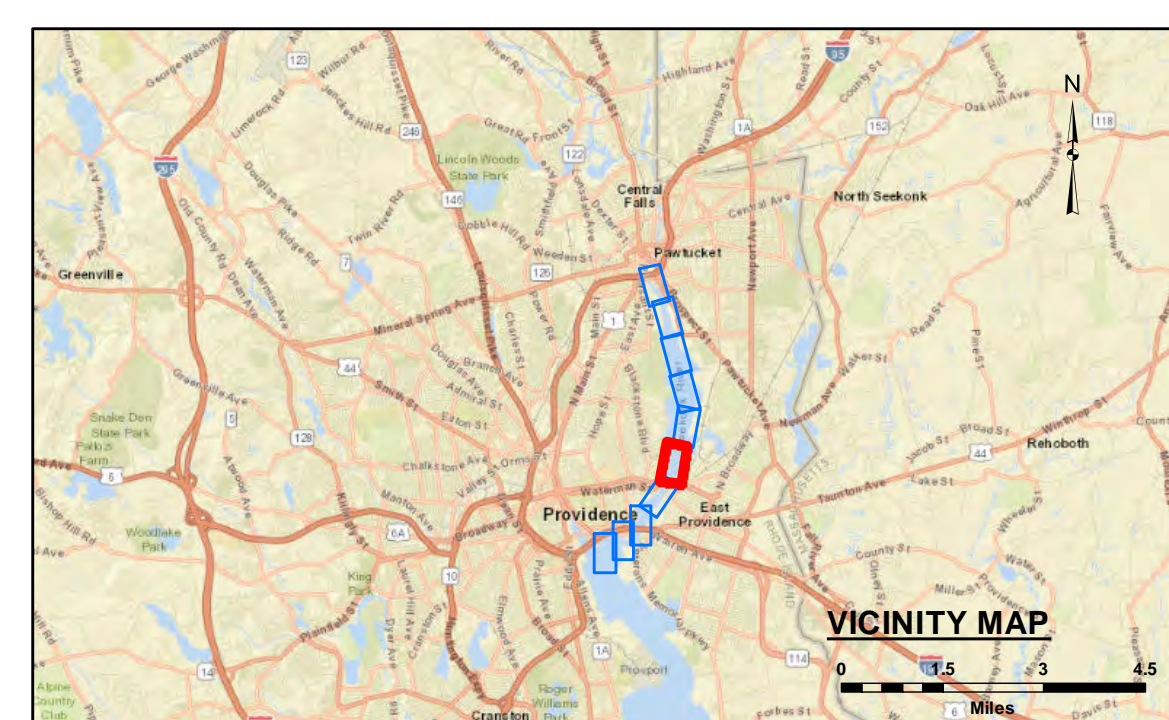
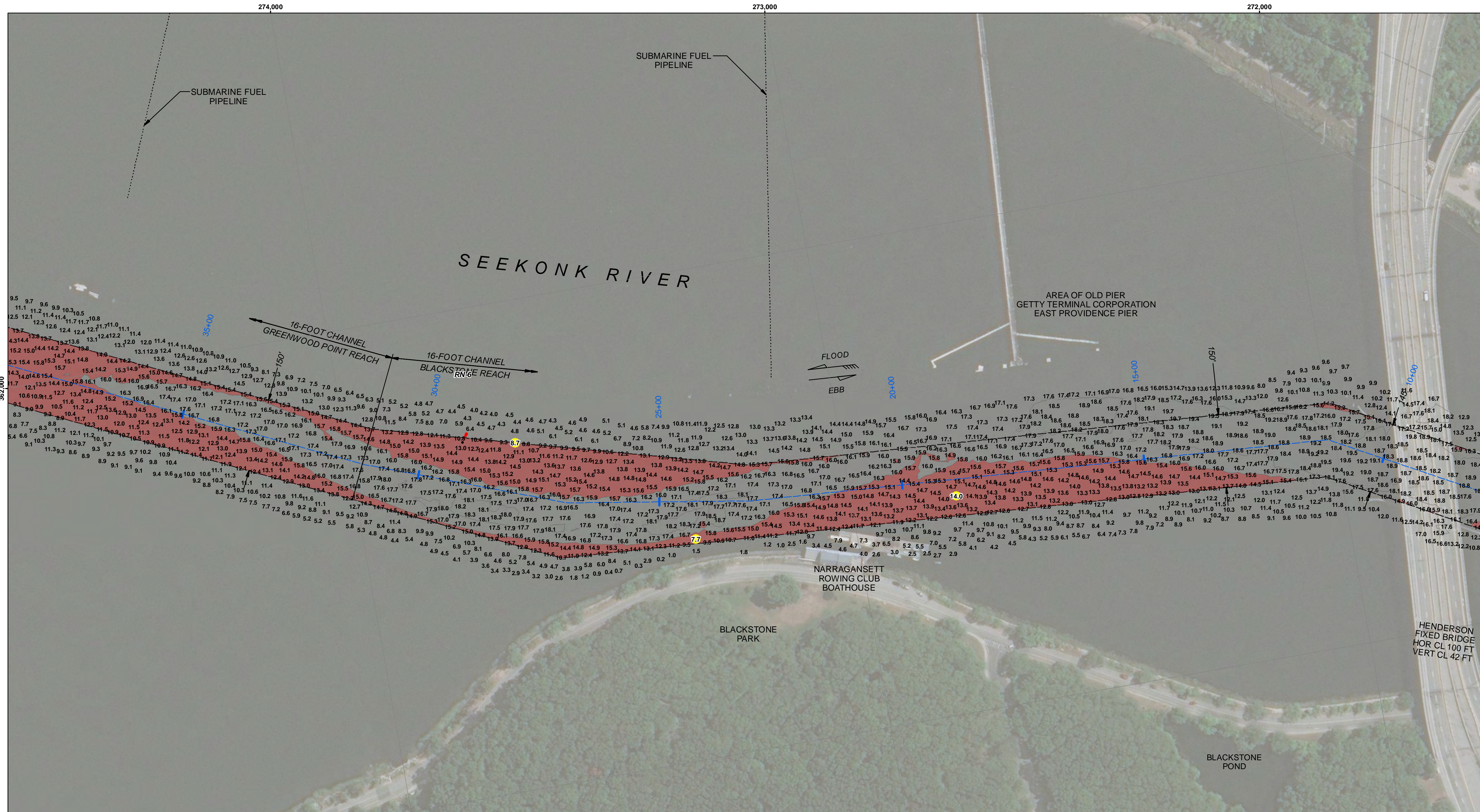


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| SURVEYED BY: MAY | | CHECKED BY: ZSM | | ISSUE DATE: 2/27/2020 | |
| SUBMITTED BY: Zhenyao Ma | | APPROVED BY: NAE Survey | | NAE DOCUMENT: RI_05_SEE_20200129_CS_016 | |
| U.S. ARMY CORPS OF ENGINEERS NEW ENGLAND DISTRICT | | SEEKONK RIVER PAWTUCKET, PROVIDENCE AND EAST PROVIDENCE, RHODE ISLAND CONDITION SURVEY | | 16-FOOT CHANNEL | |

SHEET IDENTIFICATION
 Seekonk River
 Sheet 4 of 10

Revision Number: 4.1-20191105



LEGEND

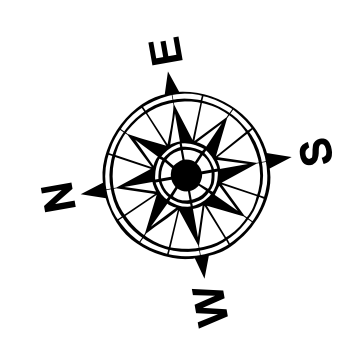
- Federal Navigation Channel
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** Shoalest Sounding per Quarter per Reach

GRAPHIC SCALE

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0 100 200 Feet



Notes:
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 Vertical Datum: MLLW
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 Sounding Frequency: 300 KHz
 Survey Method: RTK GPS TIDES
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 RTK Base Station: MTS Smartnet Max
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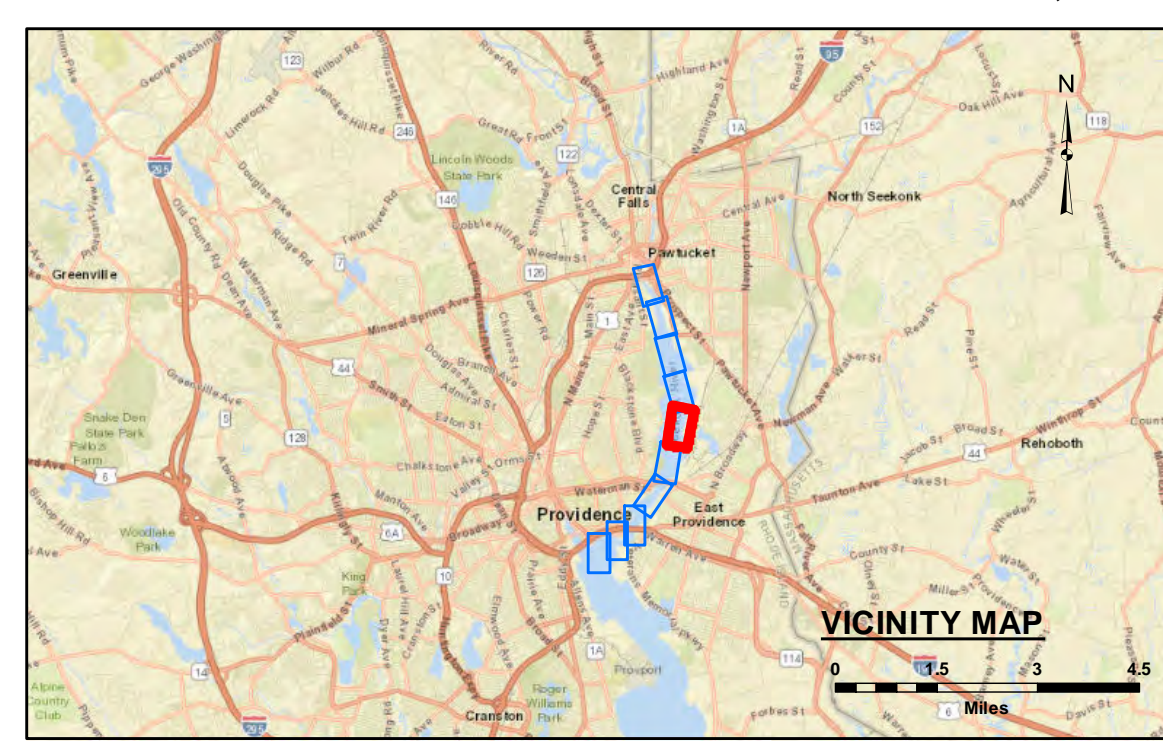
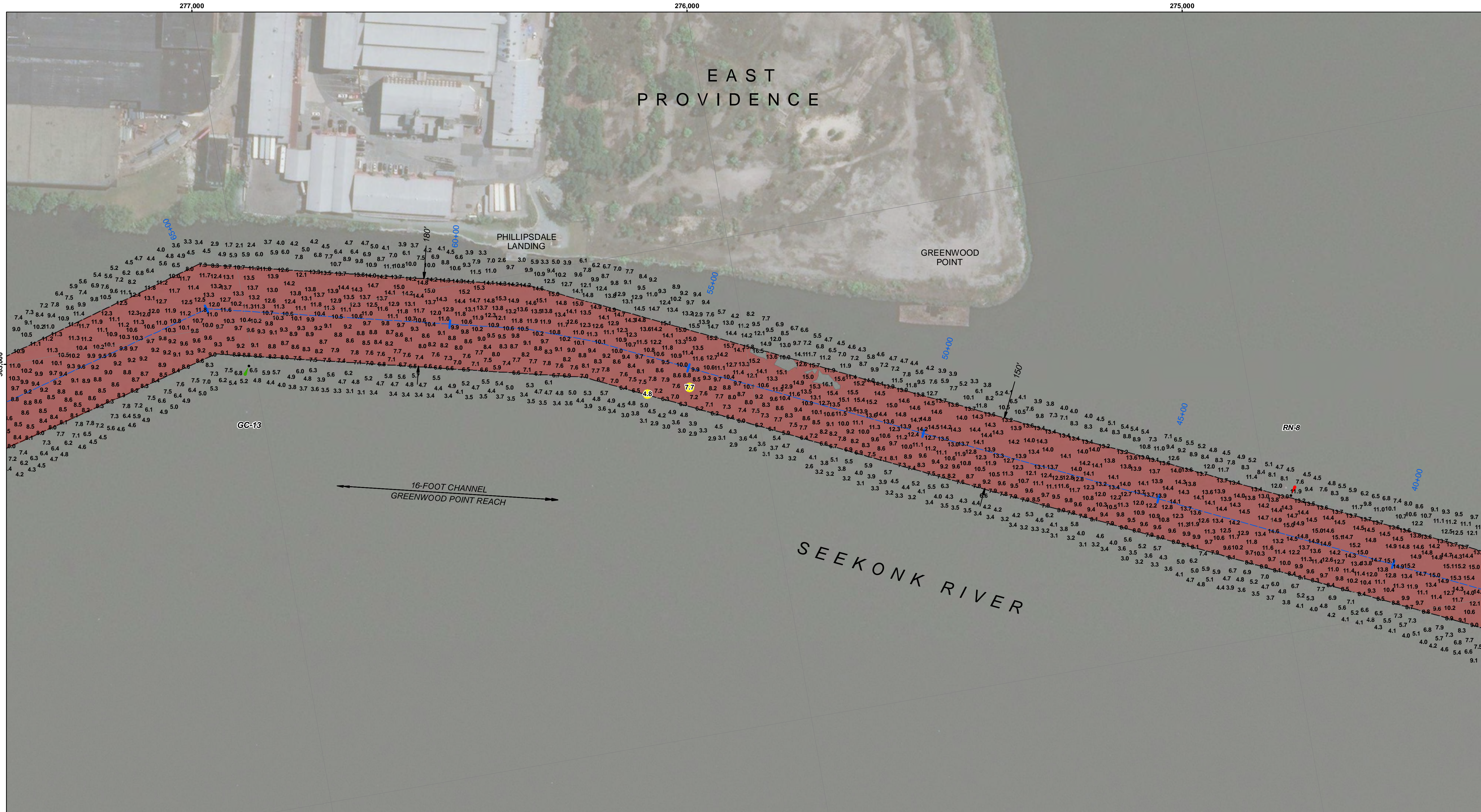
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|---------------------------------|--|----------------------------|--|---|--|
| SURVEYED BY: MAY | | CHECKED BY: ZSM | | ISSUE DATE: 2/27/2020 | |
| SUBMITTED BY: Zachary McAvoy | | APPROVED BY: NAE Survey | | NAE DOCUMENT RI_05_SEE_20200129_CS_016 | |
| SIZE: A3/D3 | | | | | |

**SEEKONK RIVER
 PAWTUCKET, PROVIDENCE AND
 EAST PROVIDENCE, RHODE ISLAND
 CONDITION SURVEY
 16-FOOT CHANNEL**

File Name: RI_05_SEE_20200129_CS_016

**SHEET
 IDENTIFICATION**
 Seekonk River

Sheet 5 of 10



LEGEND

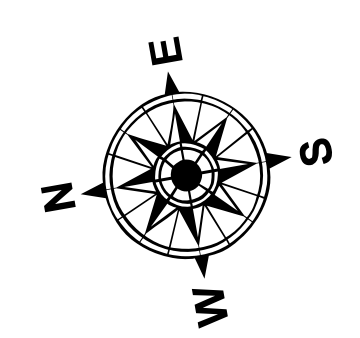
- Federal Navigation Channel
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- Shoaling Area
- Shoalest Sounding**

** Shoalest Sounding per Quarter per Reach

GRAPHIC SCALE

1" = 100'

0 100 200 Feet



Notes:
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 Vertical Datum: MLLW
 Depth Units: U.S. Survey Feet
 Vessel Name: CELESTIAL
 Sonar System: R2 Sonic 2024 (Multibeam Sonar)
 Sounding Frequency: 300 kHz
 Survey Method: RTK GPS TIDES
 GPS System: Trimble SPS 855 (RTK)
 RTK Base Station: MTS Smartnet Max
 Software Used: Hypack
 Sounding Sort Distance: 20'
 Field Books: R&H 4485
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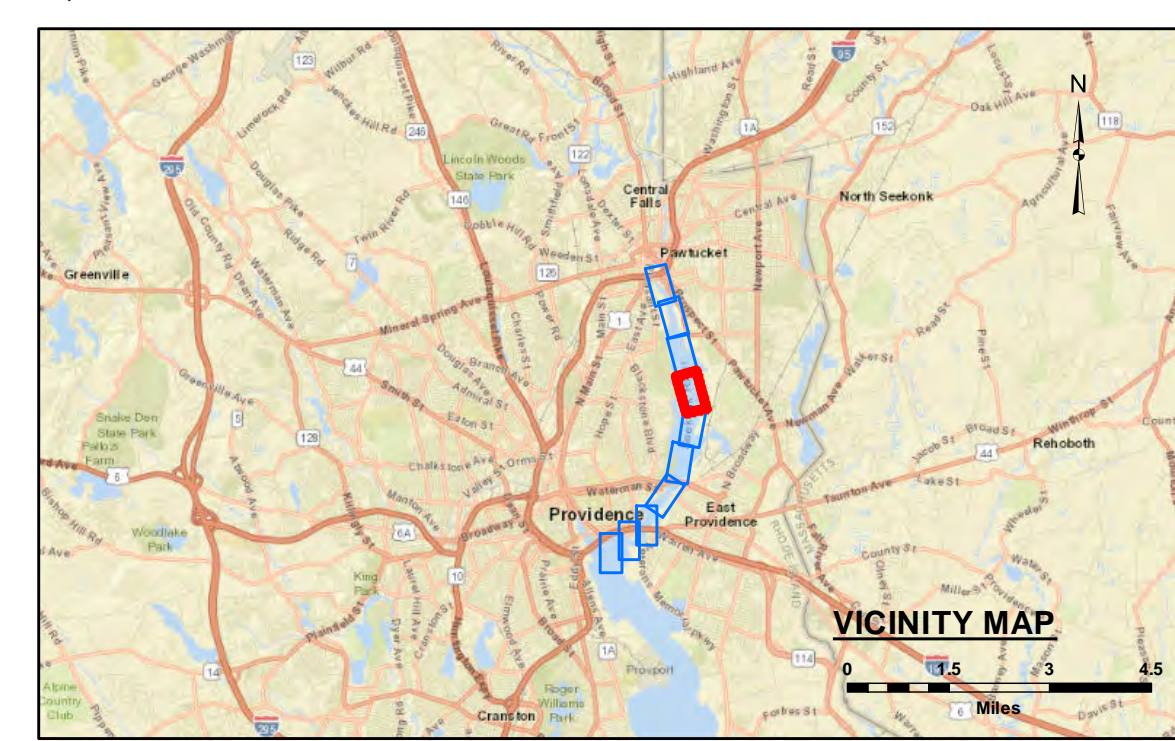
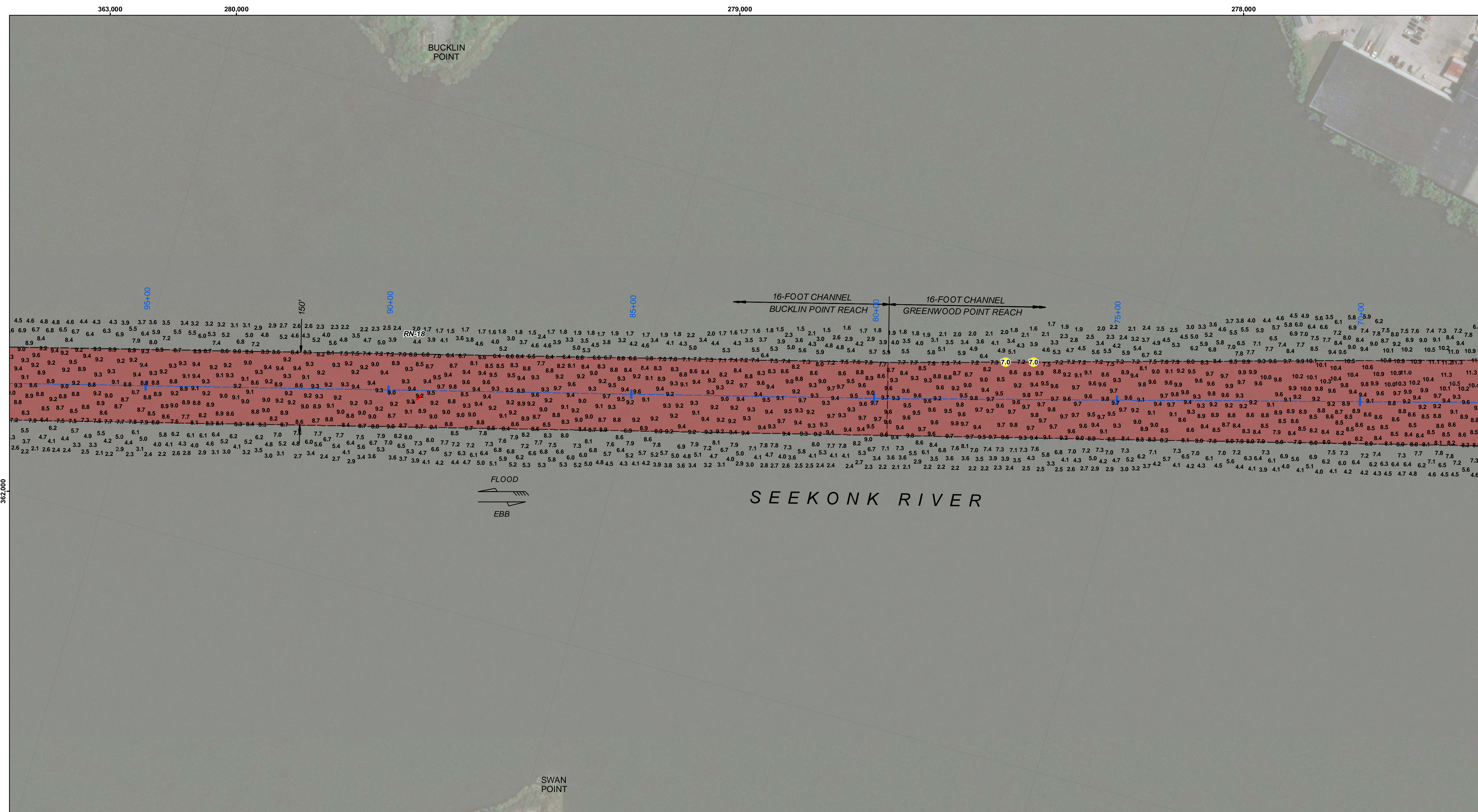
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| SURVEYED BY: MAV | | CHECKED BY: ZSM | | ISSUE DATE: 2/27/2020 |
| SUBMITTED BY: Zhenyao MaXavy | | APPROVED BY: NAE Survey | | NAE DOCUMENT RI_05_SEE_20200129_CS_016 |
| SIZE: A3SID | | | | |

**SEEKONK RIVER
 PAWTUCKET, PROVIDENCE AND
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 CONDITION SURVEY
 16-FOOT CHANNEL**

File Name: RI_05_SEE_20200129_CS_016

**SHEET
 IDENTIFICATION**
 Seekonk River
 Sheet 6 of 10

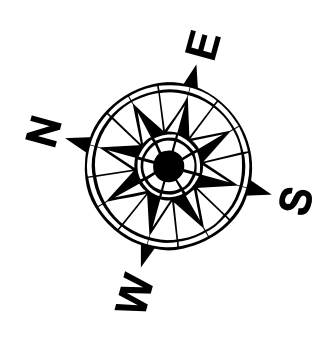


LEGEND

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** Shoalest Sounding per Quarter per Reach



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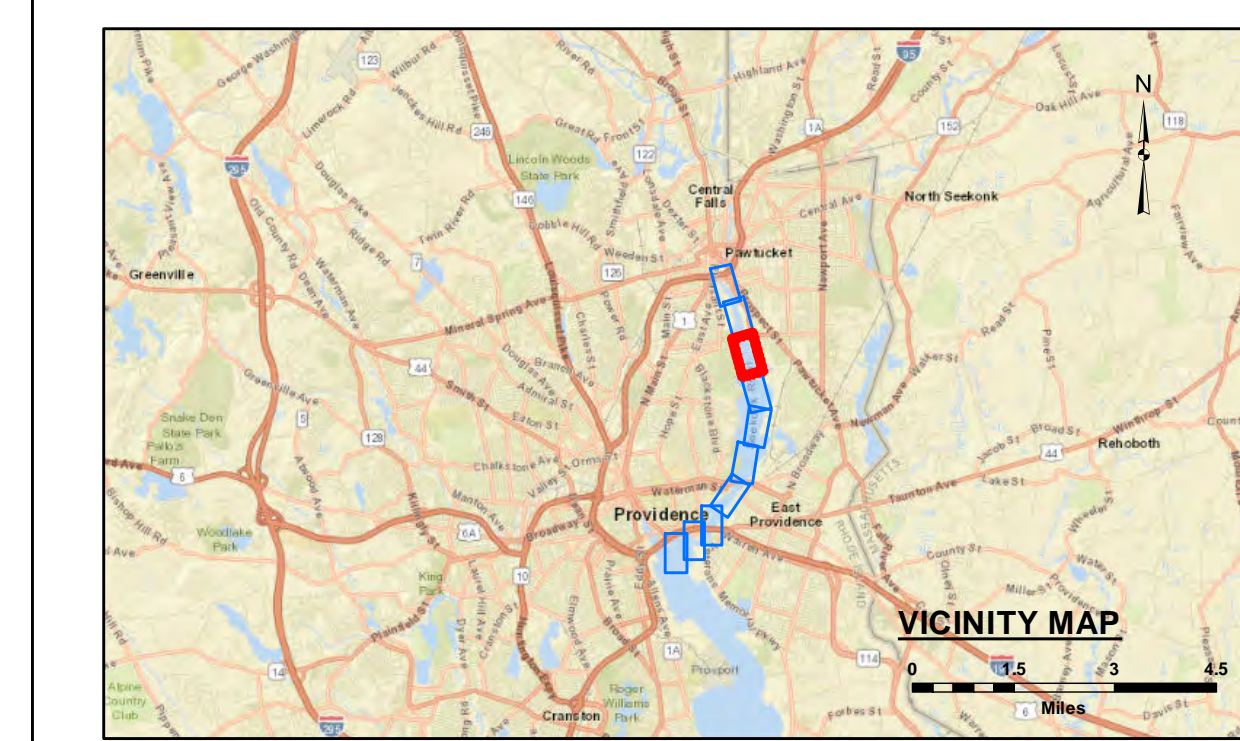
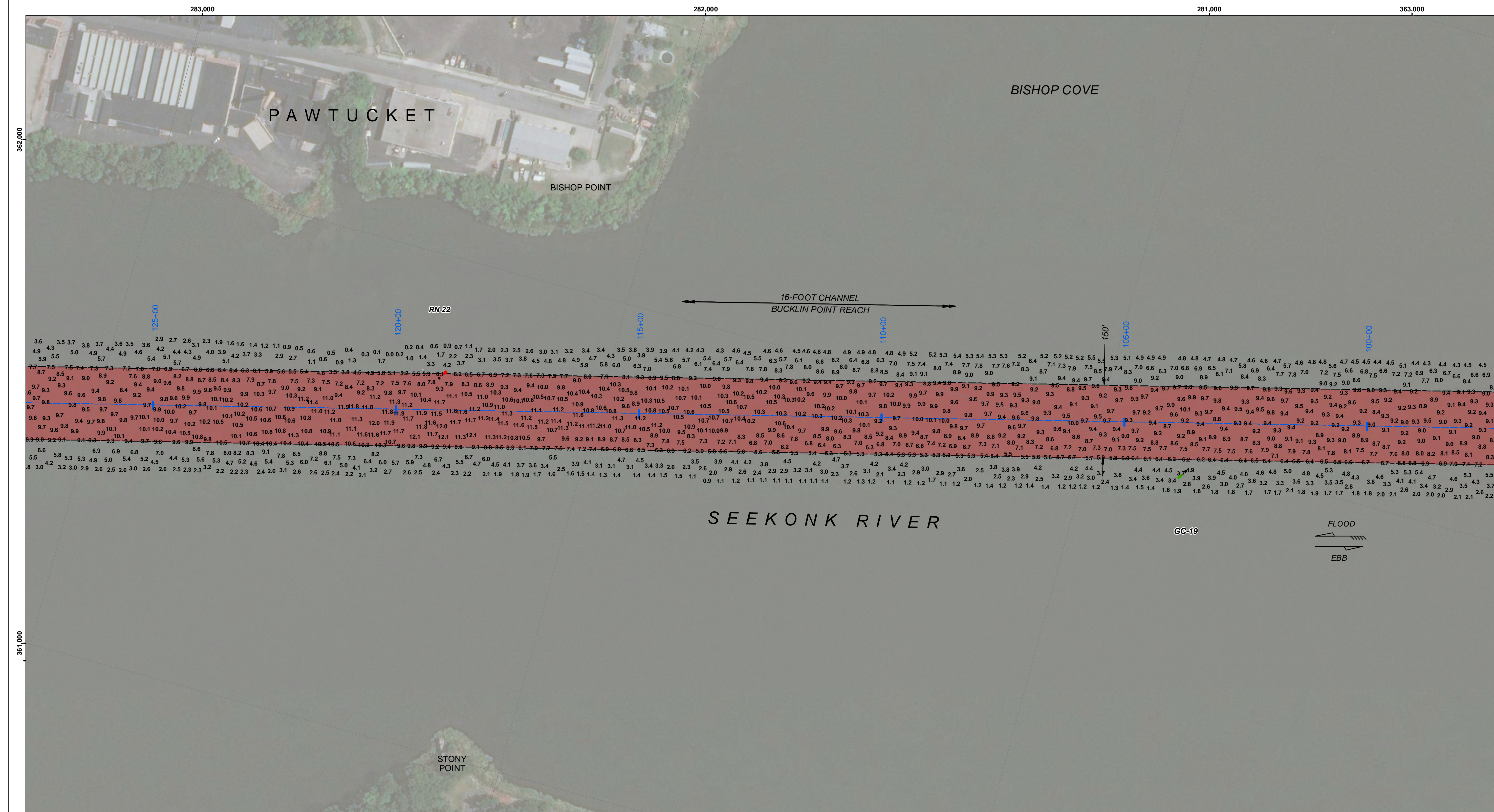
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|--|--------------------------|
| U.S. ARMY CORPS OF ENGINEERS NEW ENGLAND DISTRICT | |
| SUBMITTED BY: Zachary Malvey | SURVEYED BY: MAY |
| APPROVED BY: NAE Survey | CHECKED BY: ZSM |
| NAE DOCUMENT RI_05_SEE_20200129_CS_016 | ISSUE DATE: 2/27/2020 |
| SIZE ANSI D | |

**SEEKONK RIVER
PAWTUCKET, PROVIDENCE AND
EAST PROVIDENCE, RHODE ISLAND
CONDITION SURVEY**

16-FOOT CHANNEL

File Name: RI_05_SEE_20200129_CS_016

SHEET IDENTIFICATION
 Seekonk River
 Sheet 7 of 10



LEGEND

- Federal Navigation Channel
- Cable or Pipe Areas
- - - Channel Center Line
- Contour Line
- ⊗ Obstruction Point
- ⊗ Fixed Navigation Aids
- Red Navigation Buoy
- Green Navigation Buoy
- Shoaling Area
- Shoalest Sounding**

GRAPHIC SCALE
1" = 100'
0 100 200 Feet

** Shoalest Sounding per Quarter per Reach

Notes:
Horizontal Datum: Rhode Island, RI-3800
Distance Units: U.S. Survey Feet
Vertical Datum: MLLW
Depth Units: U.S. Survey Feet
Vessel Name: CELESTIAL
Sonar System: R2 Sonic 2024 (Multibeam Sonar)
Sounding Frequency: 300 kHz
Survey Method: RTK GPS TIDES
GPS System: Trimble SPS 855 (RTK)
RTK Base Station: MTS Smartnet Max
Software Used: Hypack
Sounding Sort Distance: 20'
Field Books: R&H 4485
Survey No.: RI_05_SEE_20200129_CS_016
Reference NOAA Chart No.: 13224

General Notes
The sounding information shown on this map represents the SHOALEST soundings of those obtained from hydrographic surveys conducted during January 2020. The sounding information depicted on this map represents the results of surveys made on the dates indicated and can only be considered as indicating the conditions existing at that time. The positions of aids to navigation were located during survey operations, are provided for information only and should not be used for navigation. Orthomagny is from a variety of sources and dates and is intended to portray general characteristics of the shoreline and other features. Temporal changes may have occurred since this dataset was collected and some parts may no longer be an accurate representation of the conditions. The information depicted on this map should NOT be used to determine volumes as volumes are determined from more sounding information than shown.

Project Remarks
Marine infrastructure surveyed with Lidar.

The information depicted on these charts represents the results of surveys made on the dates indicated, and can only be considered as indicating the conditions existing at that time.

Water Level Information
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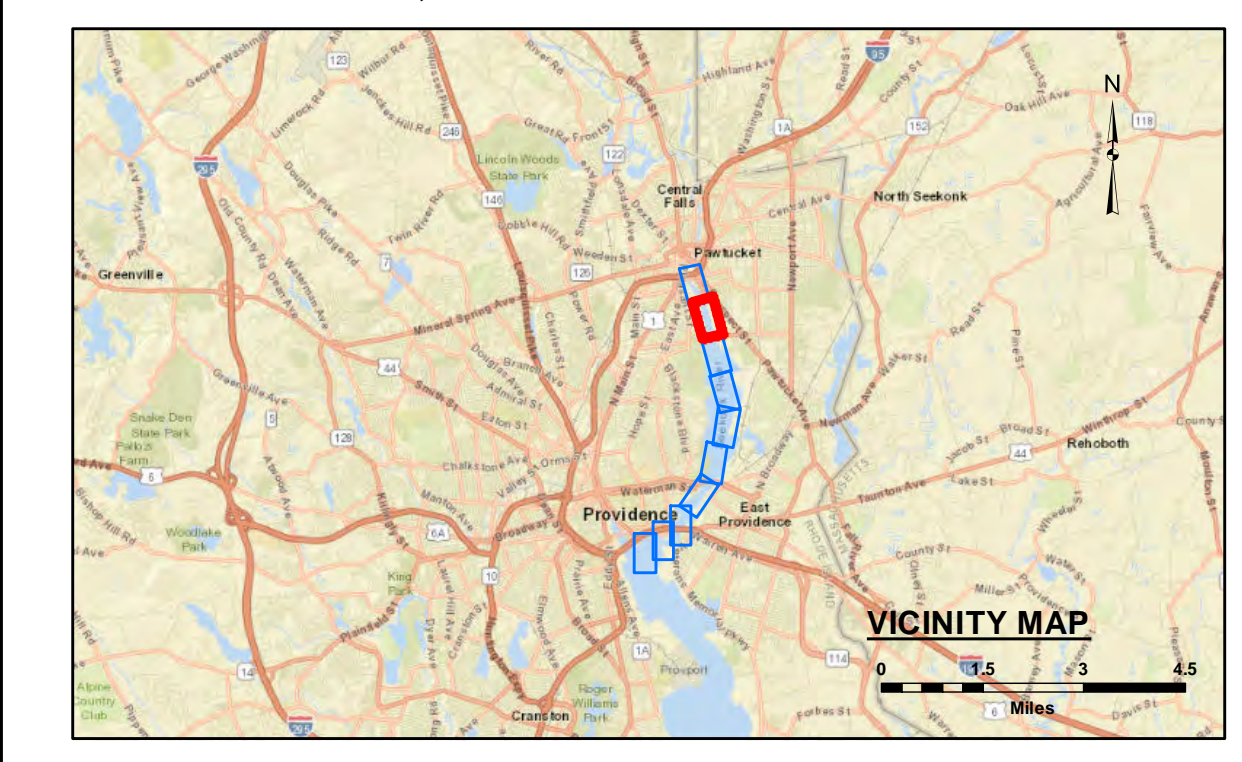
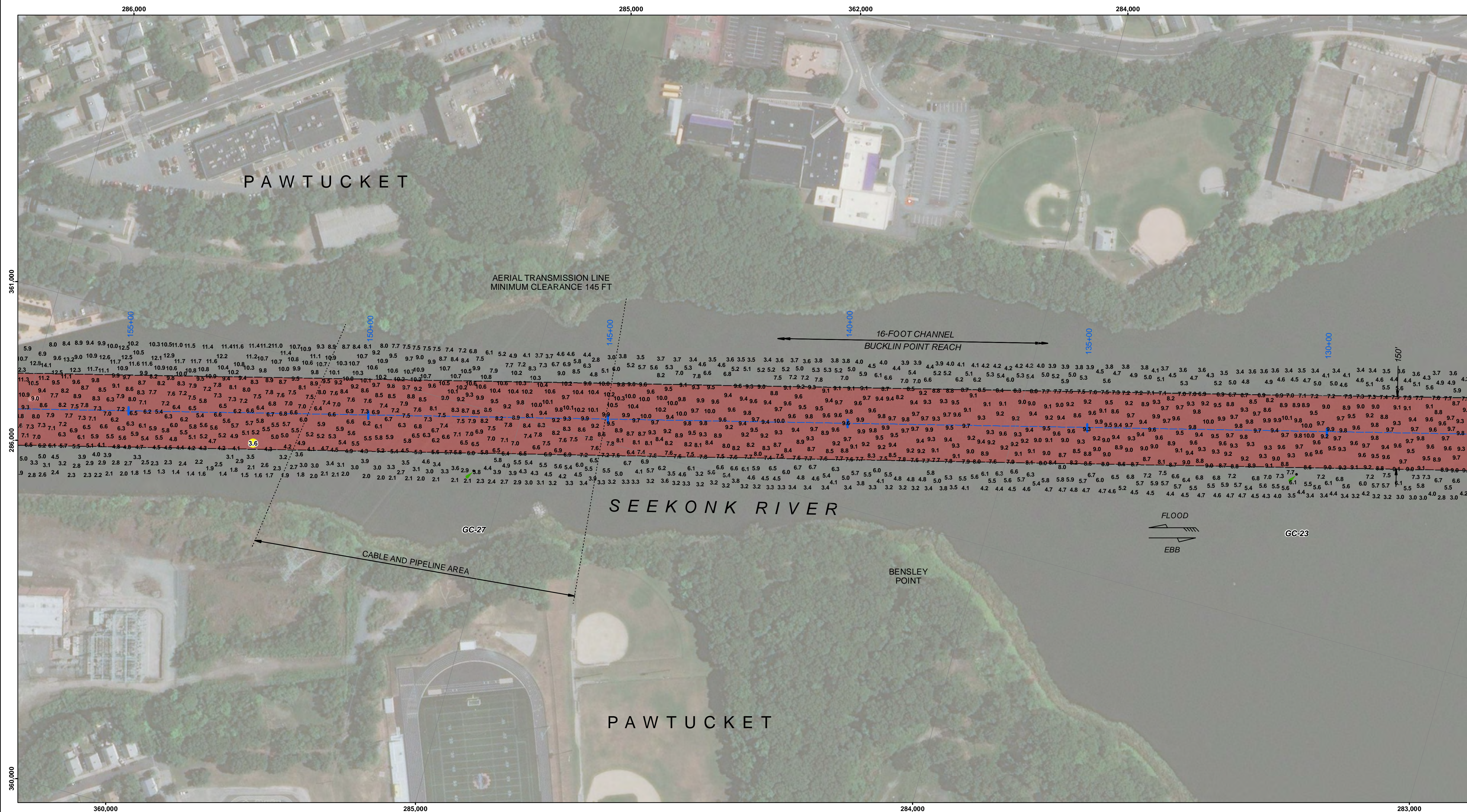
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| SURVEYED BY: MAY | | CHECKED BY: ZSM | | ISSUE DATE: 2/27/2020 | |
| SUBMITTED BY: Zebay McAvoy | | APPROVED BY: NAE Survey | | NAE DOCUMENT: RI_05_SEE_20200129_CS_016 | |
| SIZE: ANSI D | | | | | |

**SEEKONK RIVER
PAWTUCKET, PROVIDENCE AND
EAST PROVIDENCE, RHODE ISLAND
CONDITION SURVEY
16-FOOT CHANNEL**

File Name: RI_05_SEE_20200129_CS_016

**SHEET
IDENTIFICATION
Seekonk River**

Sheet 8 of 10



LEGEND

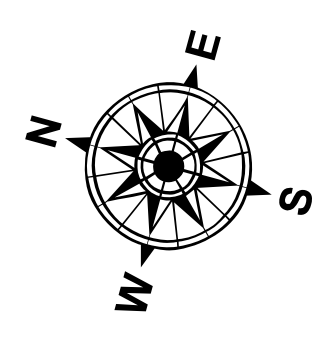
- Federal Navigation Channel
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- Channel Center Line
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- ⊗ Fixed Navigation Aids
- Red Navigation Buoy
- Green Navigation Buoy
- Shoaling Area
- Shoalest Sounding**

** Shoalest Sounding per Quarter per Reach

GRAPHIC SCALE

1" = 100'

0 100 200 Feet



Notes:
 Horizontal Datum: Rhode Island, RI-3800
 Distance Units: U.S. Survey Feet
 Vertical Datum: MLLW
 Depth Units: U.S. Survey Feet
 Vessel Name: CELESTIAL
 Sonar System: R2 Sonic 2024 (Multibeam Sonar)
 Sounding Frequency: 300 KHz
 Survey Method: RTK GPS TIDES
 GPS System: Trimble SPS 855 (RTK)
 RTK Base Station: MTS Smartnet Max
 Software Used: Hypack
 Sounding Sort Distance: 20'
 Field Books: R&H 4485
 Survey No.: RI_05_SEE_20200129_CS_016
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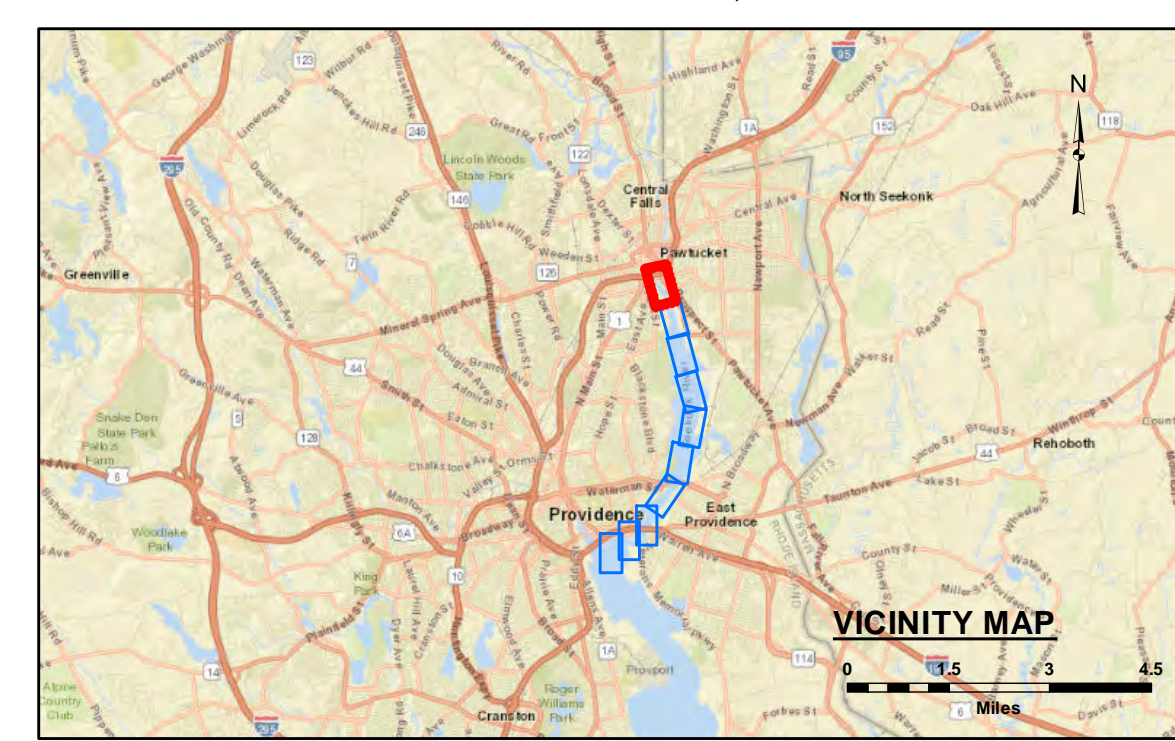
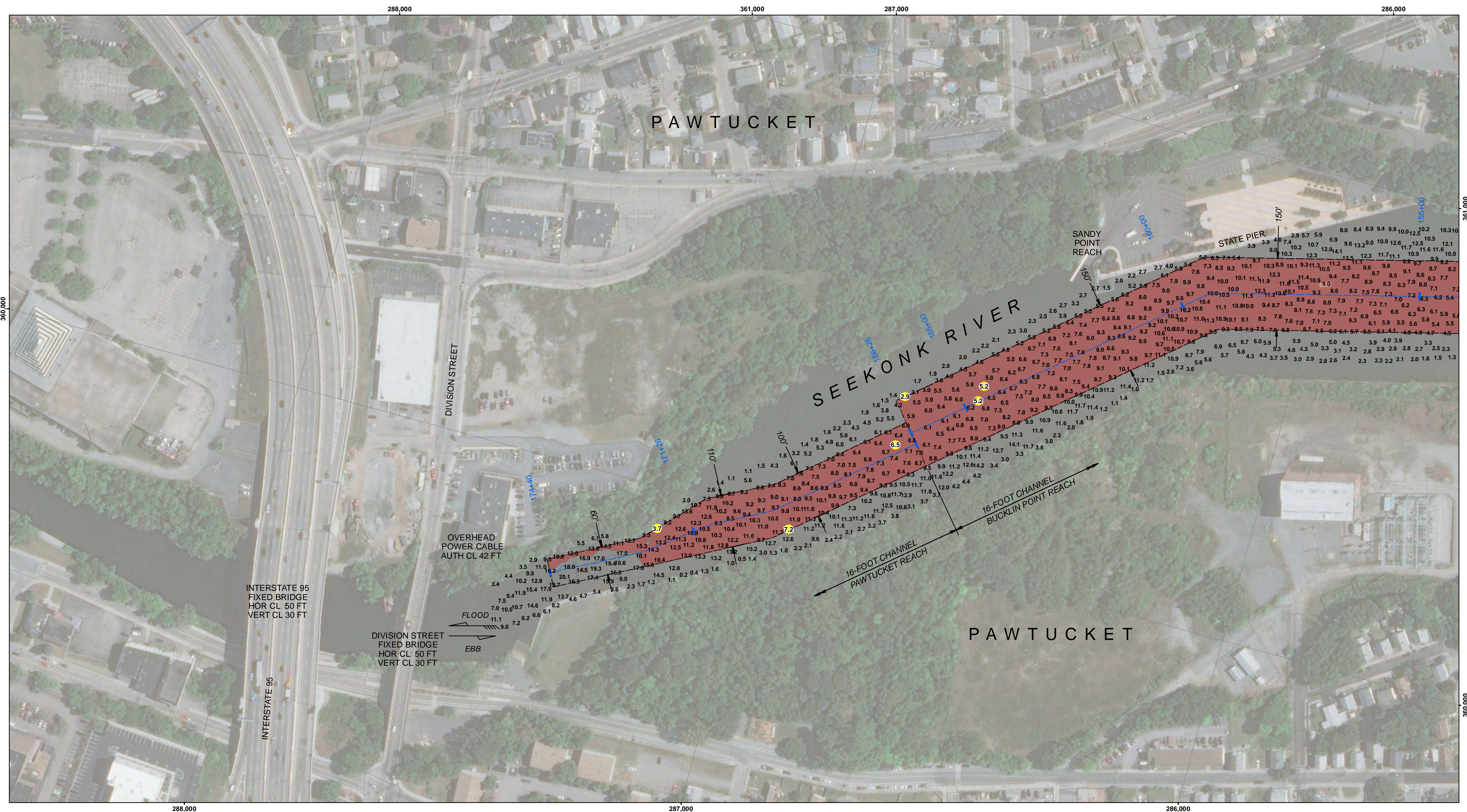
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| SUBMITTED BY: Zachary McAvoy | | CHECKED BY: ZSM | | ISSUE DATE: 2/27/2020 | |
| APPROVED BY: NAE Survey | | NAE DOCUMENT: RI_05_SEE_20200129_CS_016 | | | |
| SIZE: ANSI D | | | | | |

**SEEKONK RIVER
 PAWTUCKET, PROVIDENCE AND
 EAST PROVIDENCE, RHODE ISLAND
 CONDITION SURVEY
 16-FOOT CHANNEL**

File Name: RI_05_SEE_20200129_CS_016

SHEET IDENTIFICATION
 Seekonk River
 Sheet 9 of 10

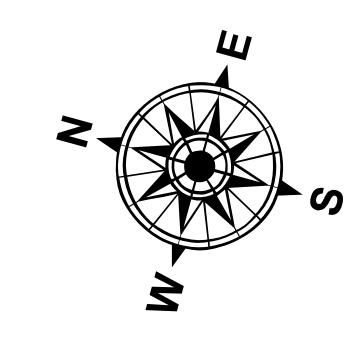


LEGEND

- Federal Navigation Channel
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- - - Channel Center Line
- Contour Line
- ⊗ Obstruction Point
- ⊗ Fixed Navigation Aids
- Red Navigation Buoy
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** Shoalest Sounding per Quarter per Reach

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 Horizontal Datum: Rhode Island, RI-3800
 Distance Units: U.S. Survey Feet
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| U.S. ARMY CORPS OF ENGINEERS NEW ENGLAND DISTRICT | |
| SUBMITTED BY: Zachary McAvoy | CHECKED BY: ZSM |
| APPROVED BY: NAE Survey | ISSUE DATE: 2/27/2020 |
| SIZE: A3SID | NAE DOCUMENT: RI_05_SEE_20200129_CS_016 |

**SEEKONK RIVER
PAWTUCKET, PROVIDENCE AND
EAST PROVIDENCE, RHODE ISLAND
CONDITION SURVEY
16-FOOT CHANNEL**

File Name: RI_05_SEE_20200129_CS_016

**SHEET
IDENTIFICATION
Seekonk River**

Sheet 10 of 10