

Second Supplemental Addendum to the Revised Joint Permit Application Coastal Virginia Offshore Wind Commercial Project

Attachment 4-3 Revised Onshore Impact Maps

Prepared for:



707 East Main Street
Richmond, Virginia 23219

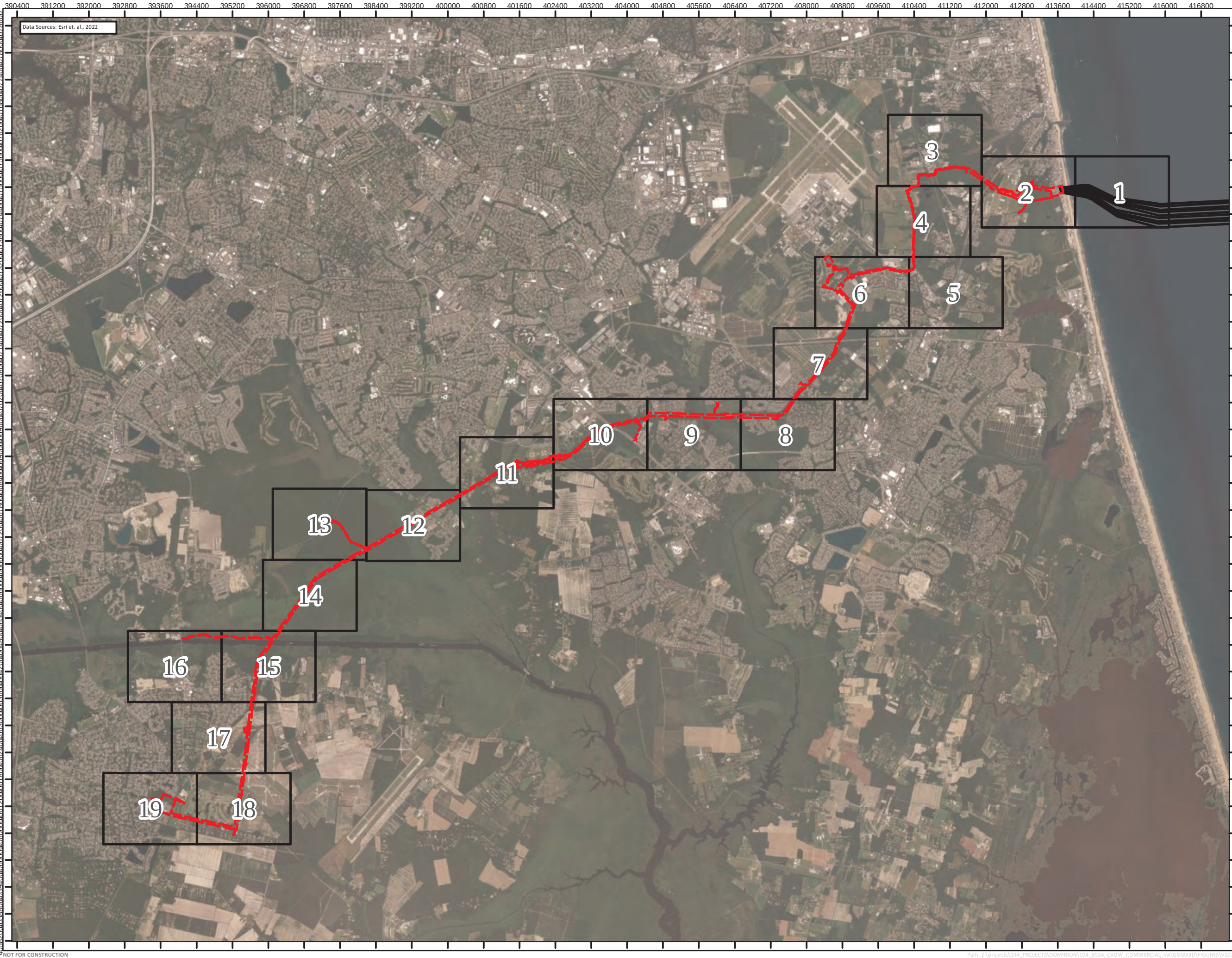
Prepared by:



Tetra Tech, Inc.
4101 Cox Road, Suite 120
Glen Allen, VA 23060

www.tetrattech.com

**Submitted May 2022
Revised July 2022
Revised August 2022
Revised December 2022**



Data Sources: Esri et. al., 2022

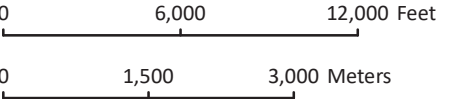
USACE-NLW
RCVD 12/14/2022

**COASTAL VIRGINIA OFFSHORE
WIND:
JOINT PERMIT APPLICATION**

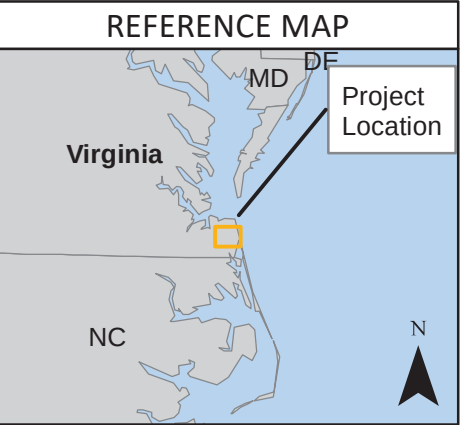


- Legend**
- Map Sheet
 - Project Area
 - Offshore Export Cable

Date	12/1/2022
Projection	NAD 1983 2011 UTM Zone 18N
Personnel	Figure Prepared by: Tetra Tech Offshore GIS Group



1 inch = 6,500 feet
when printed at 11"x17"



Data Sources: Esri et. al, 2021

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COASTAL VIRGINIA OFFSHORE
WIND:
JOINT PERMIT APPLICATION
ONSHORE IMPACT MAP





Legend



Offshore Export Cable Corridor



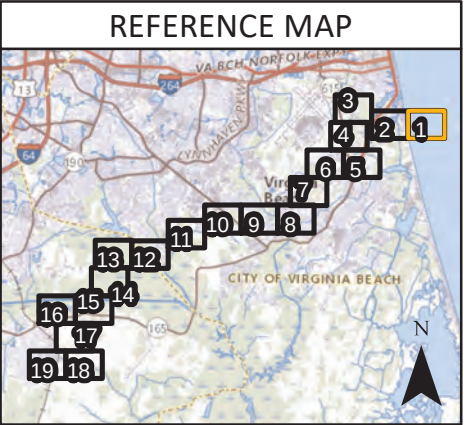
Offshore Export Cable

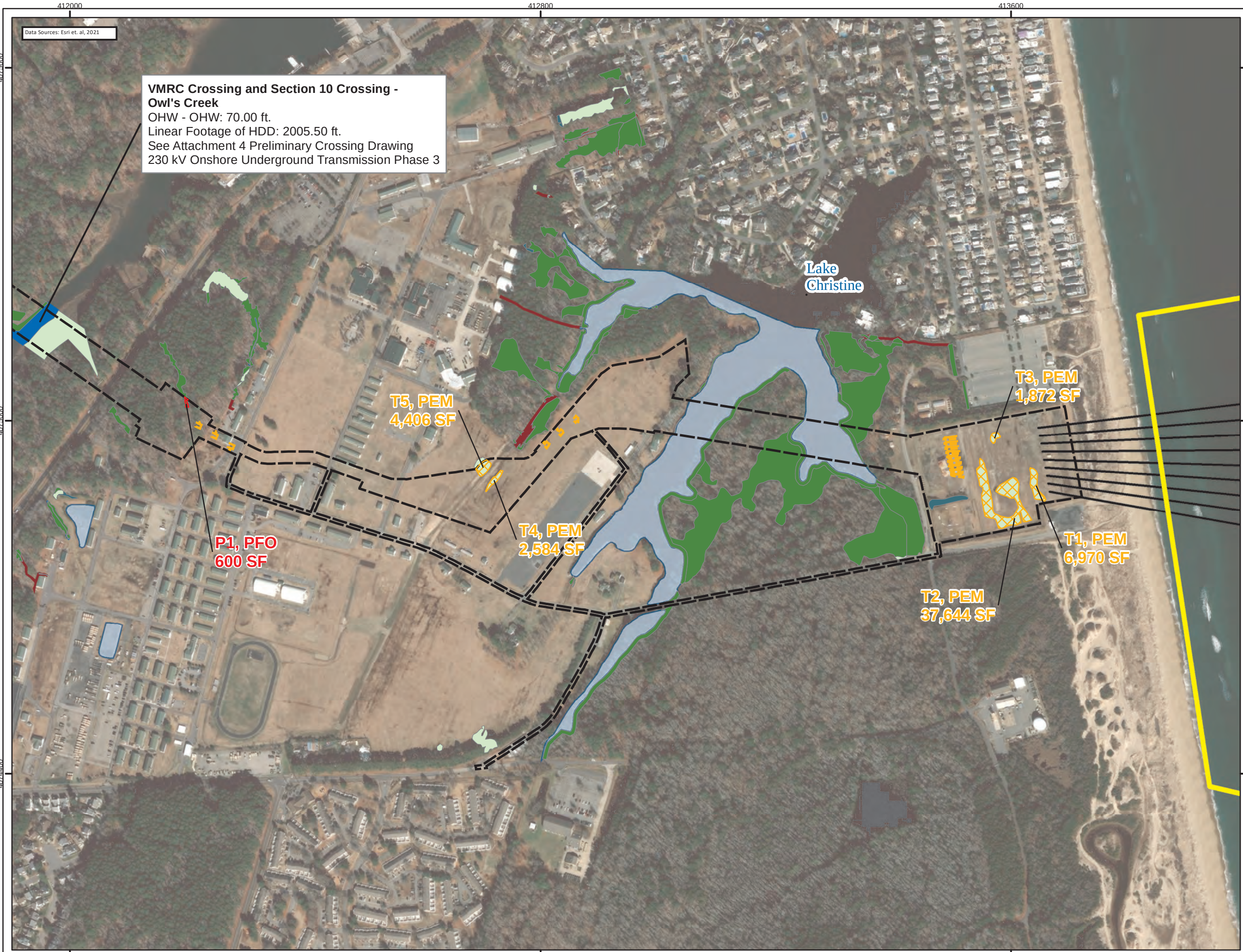
Date	12/1/2022
Projection	NAD 1983 2011 UTM Zone 18N
Personnel	Figure Prepared by: Tetra Tech Offshore GIS Group

05001,000 Feet

0125250 Meters

1 inch = 500 feet
when printed at 11"x17"





VMRC Crossing and Section 10 Crossing - Owl's Creek
OHW - OHW: 70.00 ft.
Linear Footage of HDD: 2005.50 ft.
See Attachment 4 Preliminary Crossing Drawing
230 kV Onshore Underground Transmission Phase 3

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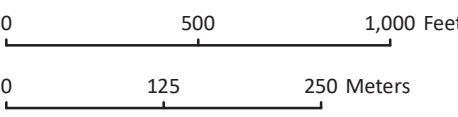
**COASTAL VIRGINIA OFFSHORE
WIND:
JOINT PERMIT APPLICATION
ONSHORE IMPACT MAP**

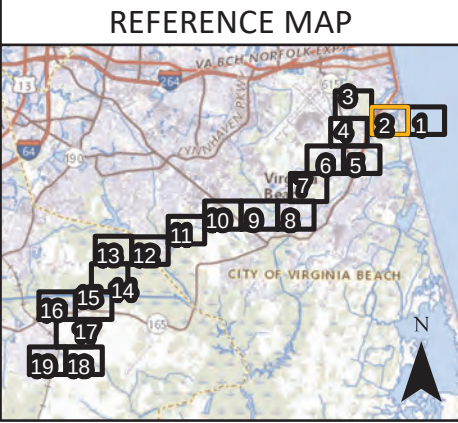
Legend

-  Project Area
-  Offshore Export Cable Corridor
-  Offshore Export Cable
-  Manhole Vault
-  Ditch
-  Stream
-  Waterbody
- Delineated Wetland**
 -  Palustrine Emergent
 -  Palustrine Forested
 -  Palustrine Scrub-Shrub
- Wetland Impact**
 -  Temporary Impact
 -  Permanent Impact

Date	12/1/2022
Projection	NAD 1983 2011 UTM Zone 18N
Personnel	Figure Prepared by: Tetra Tech Offshore GIS Group



1 inch = 500 feet
when printed at 11"x17"



Data Sources: Esri et. al, 2021

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COASTAL VIRGINIA OFFSHORE
WIND:
JOINT PERMIT APPLICATION
ONSHORE IMPACT MAP

Legend

Project Area

Manhole Vault

Ditch

Stream

Delineated Wetland

Palustrine Forested

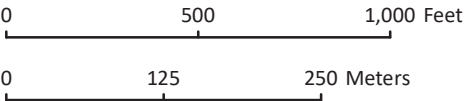
Palustrine Scrub-Shrub

Wetland Impact

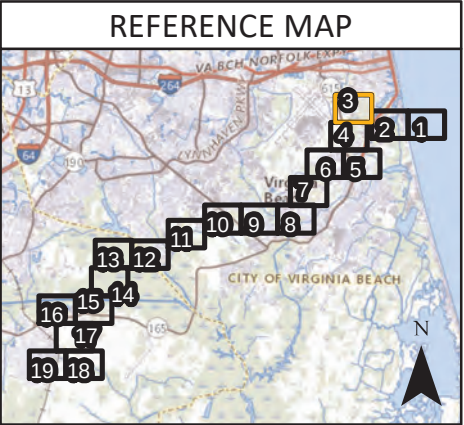
Permanent Impact

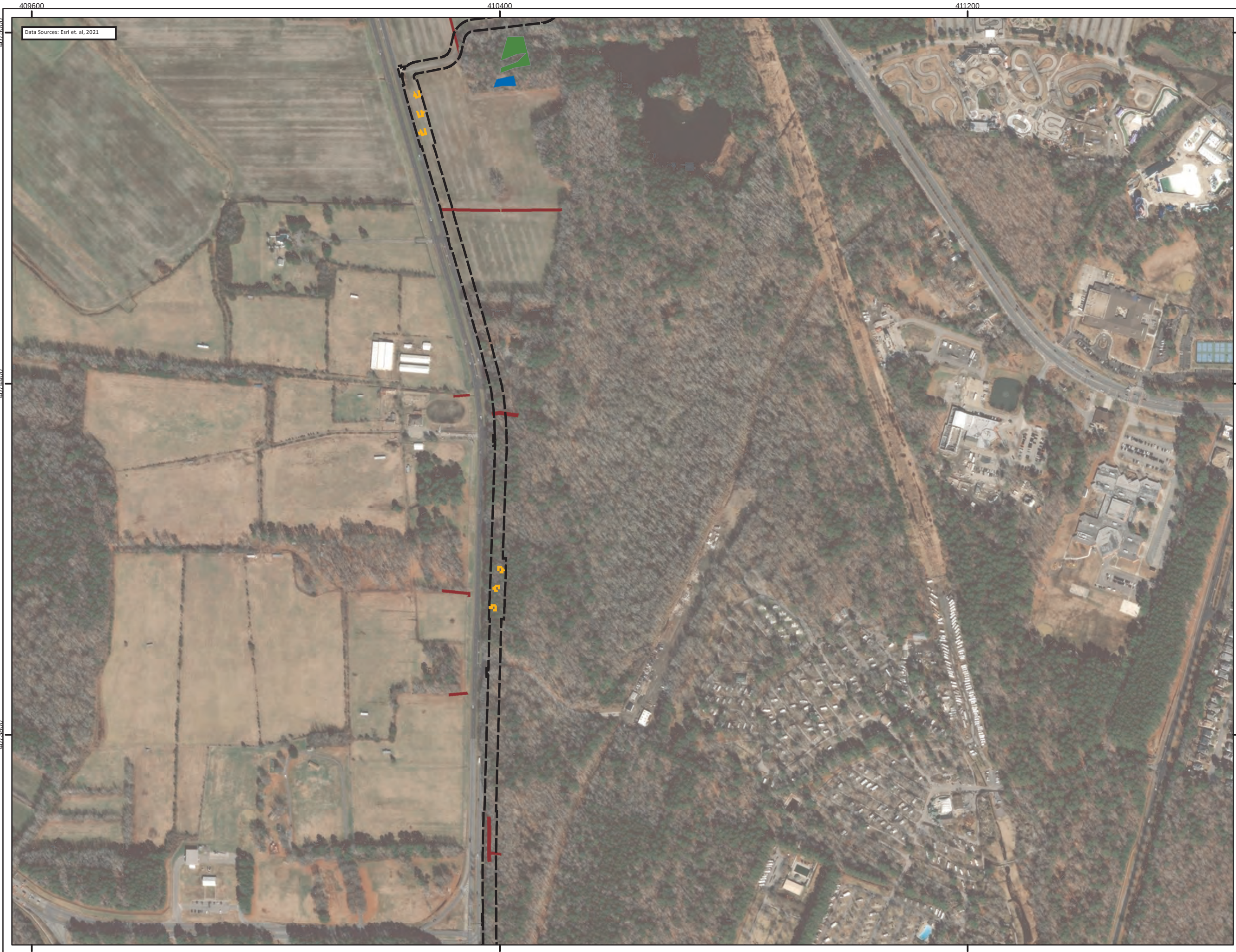
Conversion Impact

Date	12/1/2022
Projection	NAD 1983 2011 UTM Zone 18N
Personnel	Figure Prepared by: Tetra Tech Offshore GIS Group



1 inch = 500 feet
when printed at 11"x17"





Data Sources: Esri et. al, 2021

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COASTAL VIRGINIA OFFSHORE
WIND:
JOINT PERMIT APPLICATION
ONSHORE IMPACT MAP



Legend

 Project Area

 Manhole Vault

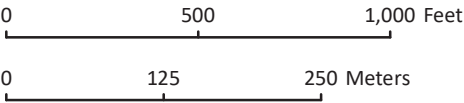
 Ditch

 Stream

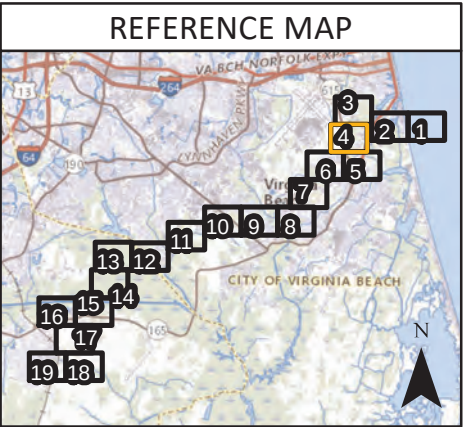
Delineated Wetland

 Palustrine Forested

Date	12/1/2022
Projection	NAD 1983 2011 UTM Zone 18N
Personnel	Figure Prepared by: Tetra Tech Offshore GIS Group



1 inch = 500 feet
when printed at 11"x17"





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COASTAL VIRGINIA OFFSHORE
WIND:
JOINT PERMIT APPLICATION
ONSHORE IMPACT MAP



Legend

 Project Area

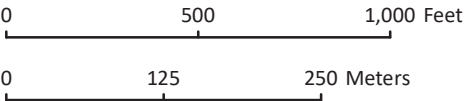
 Manhole Vault

 Ditch

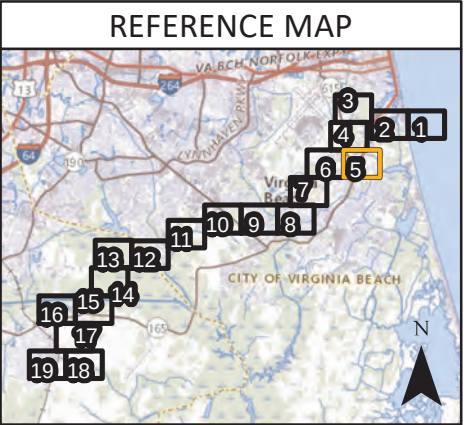
Delineated Wetland

 Palustrine Emergent

Date	12/1/2022
Projection	NAD 1983 2011 UTM Zone 18N
Personnel	Figure Prepared by: Tetra Tech Offshore GIS Group



1 inch = 500 feet
when printed at 11"x17"





Data Sources: Esri et. al, 2021

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**COASTAL VIRGINIA OFFSHORE
WIND:
JOINT PERMIT APPLICATION
ONSHORE IMPACT MAP**




Legend

- Project Area
- Manhole Vault
- Proposed Structure
- Ditch
- Stream
- Waterbody

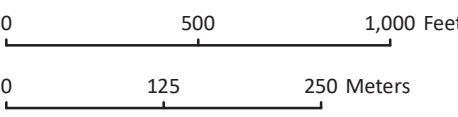
Delineated Wetland

- Palustrine Emergent
- Palustrine Forested
- Palustrine Scrub-Shrub

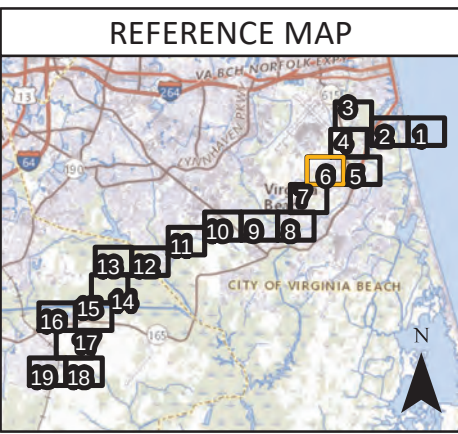
Wetland Impact

- Permanent Impact

Date	12/1/2022
Projection	NAD 1983 2011 UTM Zone 18N
Personnel	Figure Prepared by: Tetra Tech Offshore GIS Group



1 inch = 500 feet
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Data Sources: Esri et. al, 2021

4071400

4070800

408000

408800



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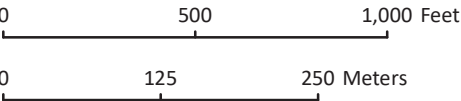
COASTAL VIRGINIA OFFSHORE
WIND:
JOINT PERMIT APPLICATION
ONSHORE IMPACT MAP



Legend

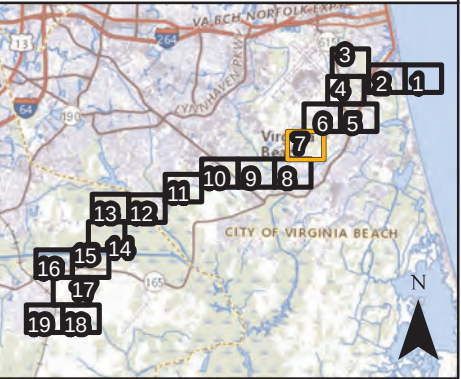
- Project Area
- Proposed Structure
- Ditch
- Stream
- Delineated Wetland**
 - Palustrine Emergent
 - Palustrine Forested
- Wetland Impact**
 - Conversion Impact

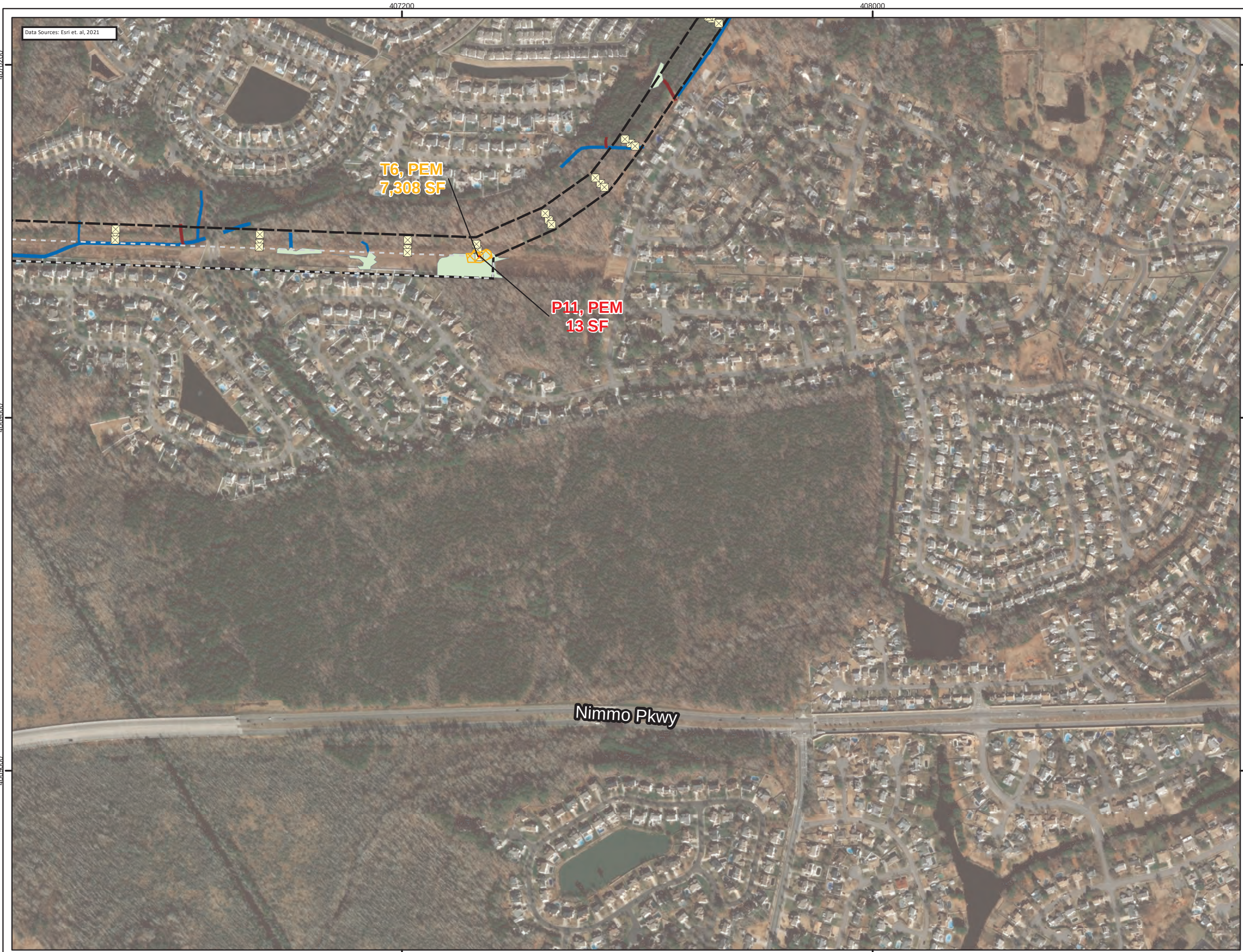
Date	12/1/2022
Projection	NAD 1983 2011 UTM Zone 18N
Personnel	Figure Prepared by: Tetra Tech Offshore GIS Group



1 inch = 500 feet
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REFERENCE MAP





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COASTAL VIRGINIA OFFSHORE
WIND:
JOINT PERMIT APPLICATION
ONSHORE IMPACT MAP



Legend

 Project Area

 Existing Right-of-Way

 Proposed Structure

 Ditch

 Stream

Delineated Wetland

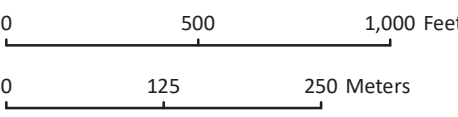
 Palustrine Emergent

Wetland Impact

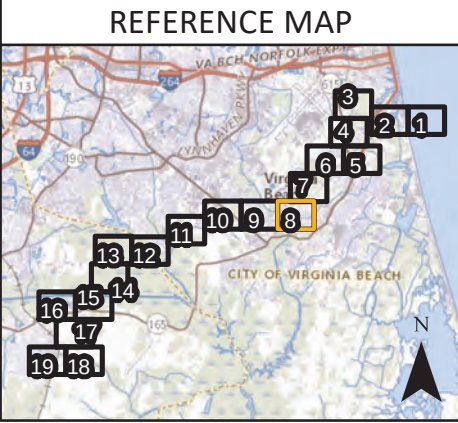
 Temporary Impact

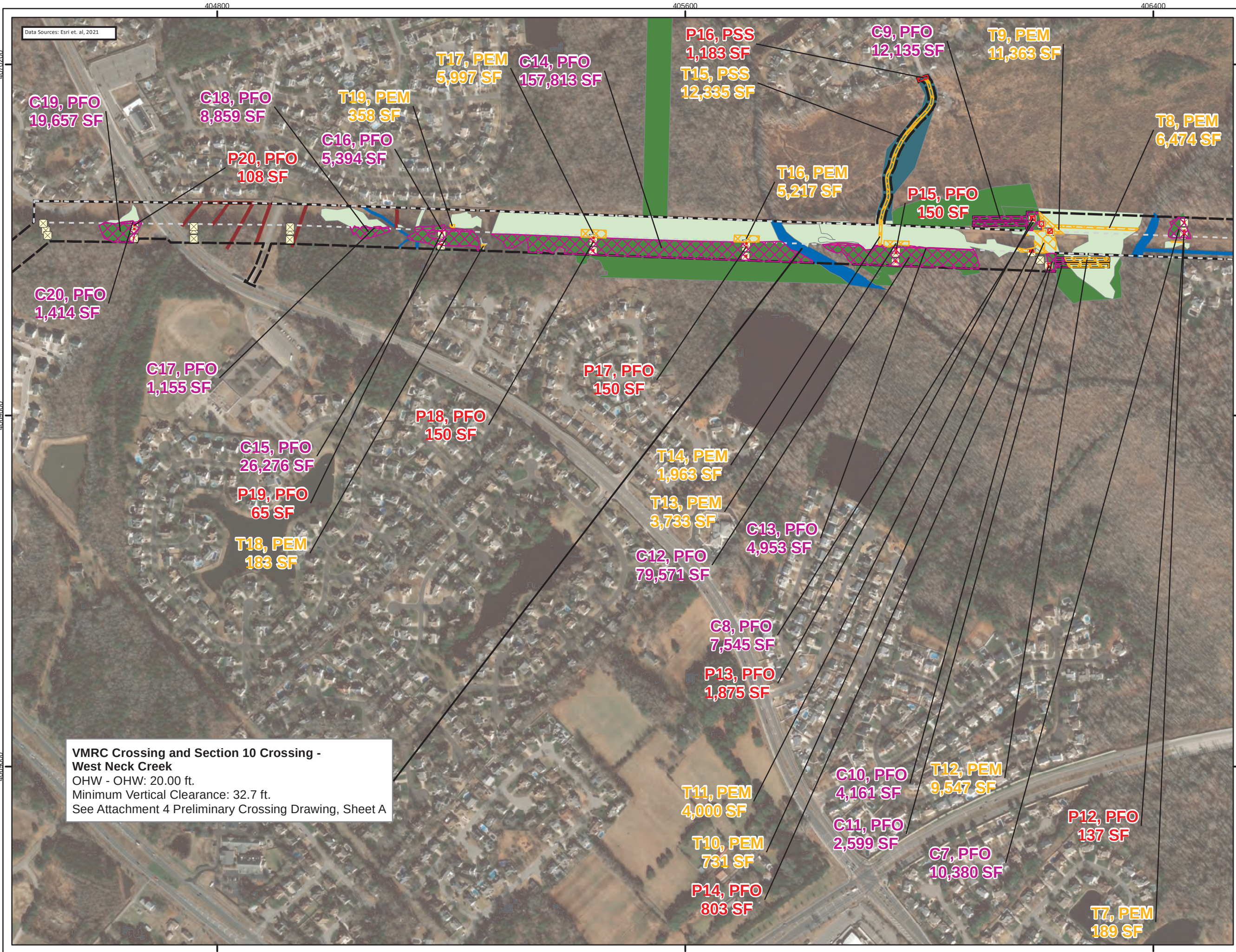
 Permanent Impact

Date	12/1/2022
Projection	NAD 1983 2011 UTM Zone 18N
Personnel	Figure Prepared by: Tetra Tech Offshore GIS Group



1 inch = 500 feet
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COASTAL VIRGINIA OFFSHORE WIND:

JOINT PERMIT APPLICATION

ONSHORE IMPACT MAP

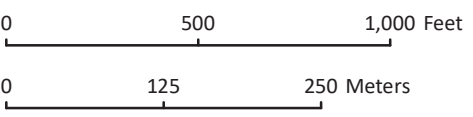
Dominion Energy

Tt

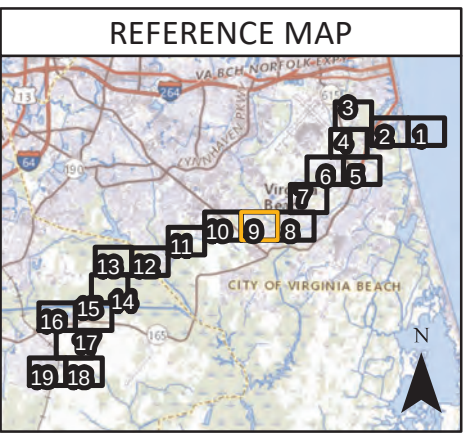
Legend

- Project Area
- Existing Right-of-Way
- Proposed Structure
- Ditch
- Stream
- Delineated Wetland**
 - Palustrine Emergent
 - Palustrine Forested
 - Palustrine Scrub-Shrub
- Wetland Impact**
 - Temporary Impact
 - Permanent Impact
 - Conversion Impact

Date	12/1/2022
Projection	NAD 1983 2011 UTM Zone 18N
Personnel	Figure Prepared by: Tetra Tech Offshore GIS Group



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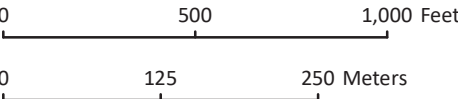
COASTAL VIRGINIA OFFSHORE
WIND:
JOINT PERMIT APPLICATION
ONSHORE IMPACT MAP



Legend

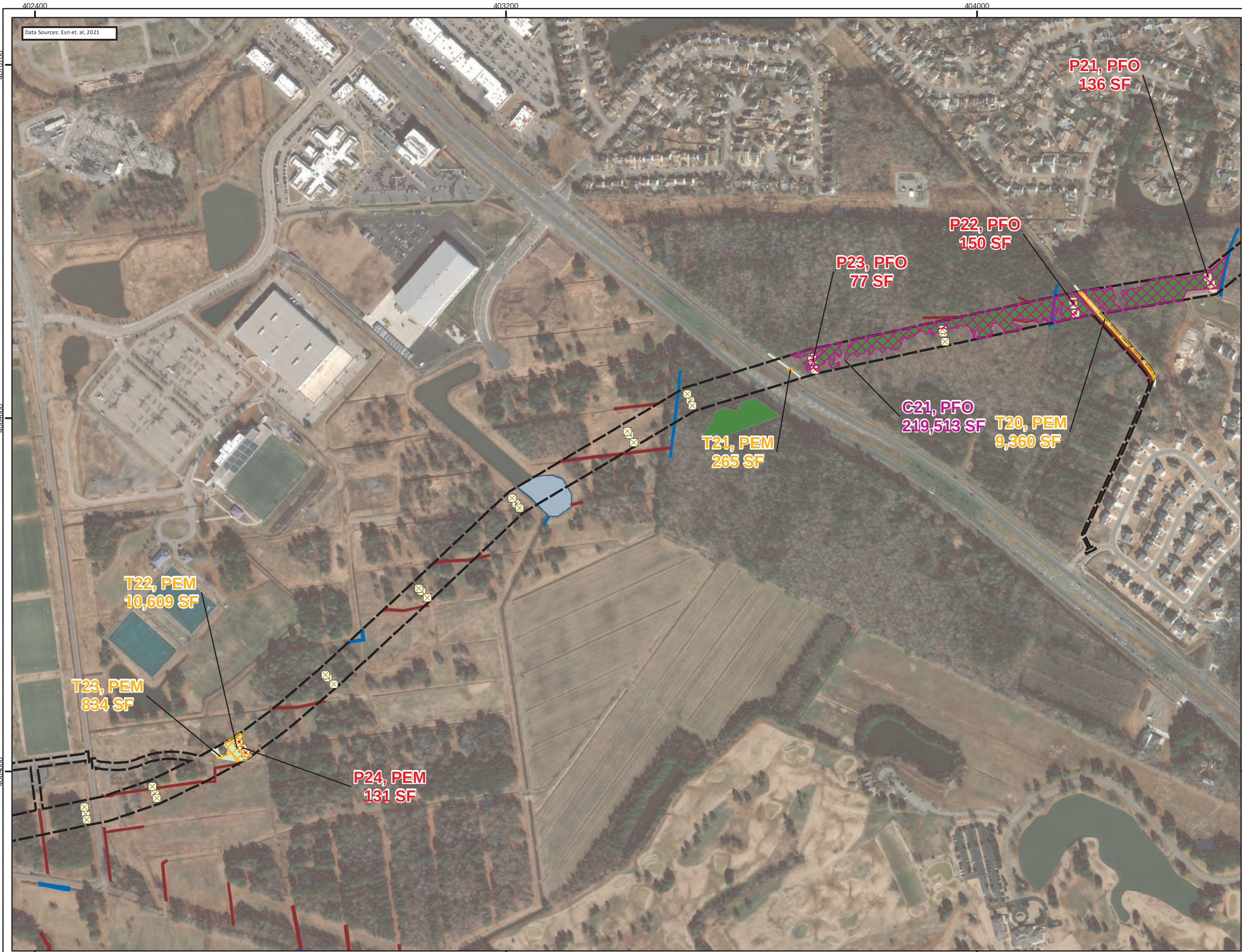
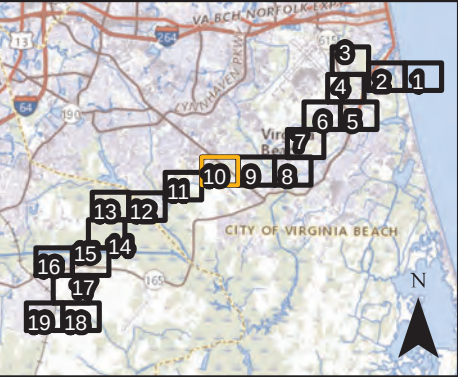
- Project Area
- Proposed Structure
- Ditch
- Stream
- Waterbody
- Delineated Wetland**
 - Palustrine Emergent
 - Palustrine Forested
- Wetland Impact**
 - Temporary Impact
 - Permanent Impact
 - Conversion Impact

Date	12/1/2022
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Personnel	Figure Prepared by: Tetra Tech Offshore GIS Group



1 inch = 500 feet
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REFERENCE MAP



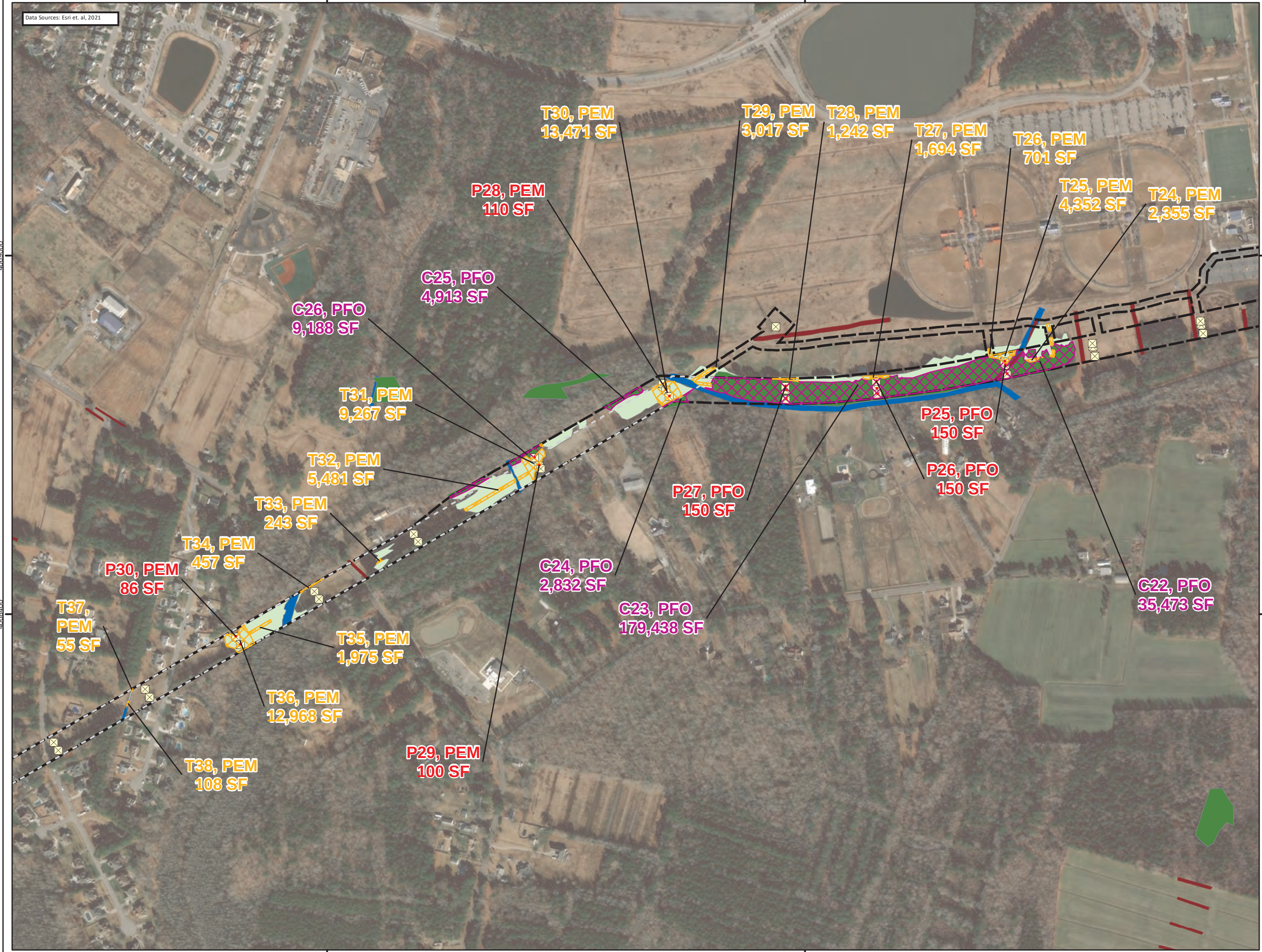
Data Sources: Esri et. al, 2021

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4068400

400800

401600



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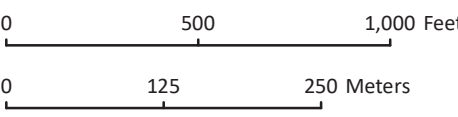
**COASTAL VIRGINIA OFFSHORE
WIND:
JOINT PERMIT APPLICATION
ONSHORE IMPACT MAP**

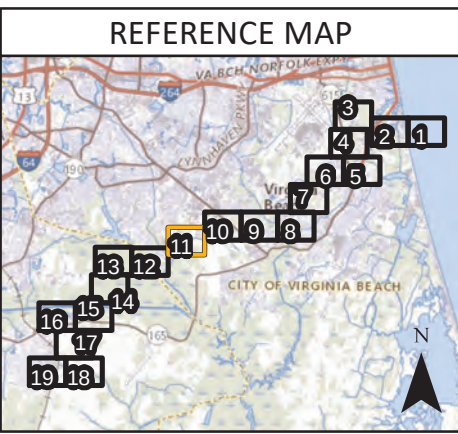
Legend

-  Project Area
-  Existing Right-of-Way
-  Proposed Structure
-  Ditch
-  Stream
- Delineated Wetland**
 -  Palustrine Emergent
 -  Palustrine Forested
- Wetland Impact**
 -  Temporary Impact
 -  Permanent Impact
 -  Conversion Impact

Date	12/1/2022
Projection	NAD 1983 2011 UTM Zone 18N
Personnel	Figure Prepared by: Tetra Tech Offshore GIS Group

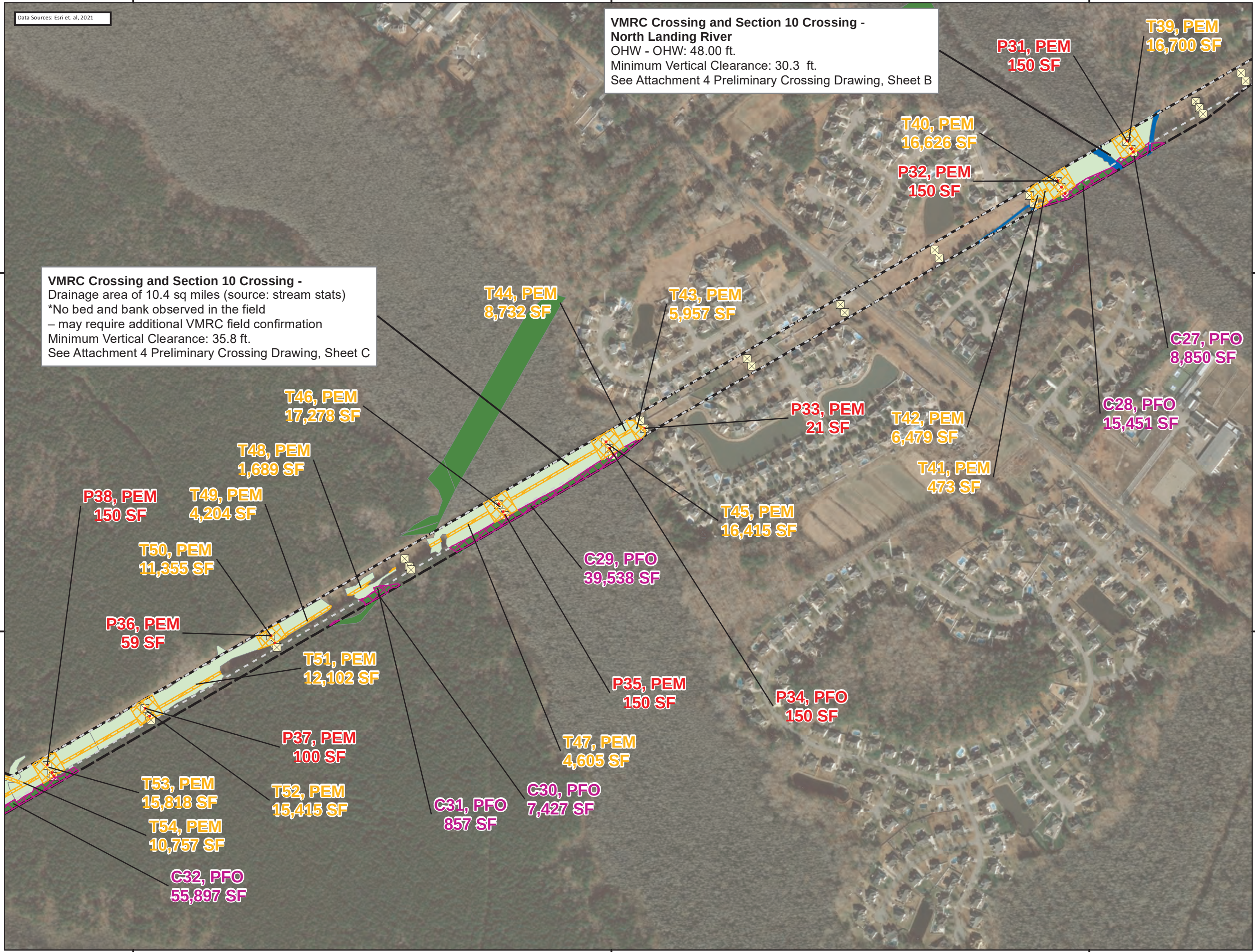


1 inch = 500 feet
when printed at 11"x17"



VMRC Crossing and Section 10 Crossing -
North Landing River
OHW - OHW: 48.00 ft.
Minimum Vertical Clearance: 30.3 ft.
See Attachment 4 Preliminary Crossing Drawing, Sheet B

VMRC Crossing and Section 10 Crossing -
Drainage area of 10.4 sq miles (source: stream stats)
*No bed and bank observed in the field
- may require additional VMRC field confirmation
Minimum Vertical Clearance: 35.8 ft.
See Attachment 4 Preliminary Crossing Drawing, Sheet C



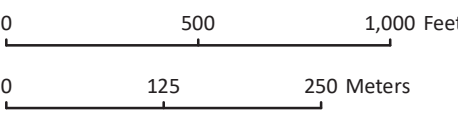
USACE-NLW
RCVD 12/14/2022

**COASTAL VIRGINIA OFFSHORE
WIND:
JOINT PERMIT APPLICATION
ONSHORE IMPACT MAP**

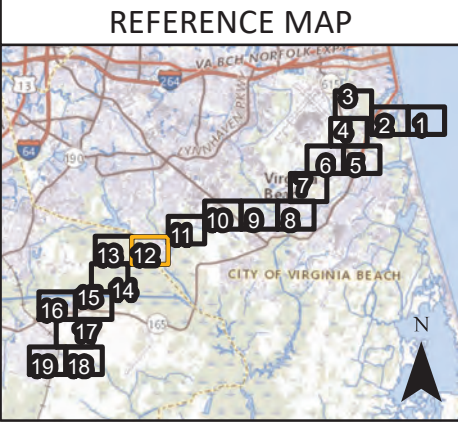
Legend

- Project Area
- Existing Right-of-Way
- Proposed Structure
- Stream
- Delineated Wetland**
 - Palustrine Emergent
 - Palustrine Forested
- Wetland Impact**
 - Temporary Impact
 - Permanent Impact
 - Conversion Impact

Date	12/1/2022
Projection	NAD 1983 2011 UTM Zone 18N
Personnel	Figure Prepared by: Tetra Tech Offshore GIS Group



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Data Sources: Esri et. al, 2021

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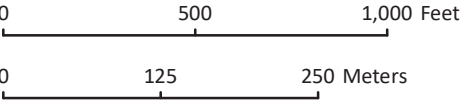
COASTAL VIRGINIA OFFSHORE
WIND:
JOINT PERMIT APPLICATION
ONSHORE IMPACT MAP



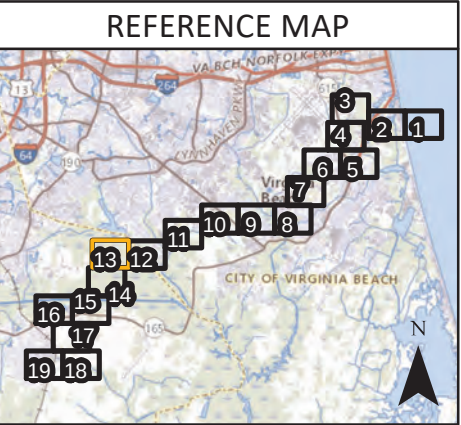
Legend

- Project Area
- Existing Right-of-Way
- Proposed Structure
- Delineated Wetland**
 - Palustrine Emergent
 - Palustrine Forested
- Wetland Impact**
 - Temporary Impact
 - Permanent Impact
 - Conversion Impact

Date	12/1/2022
Projection	NAD 1983 2011 UTM Zone 18N
Personnel	Figure Prepared by: Tetra Tech Offshore GIS Group



1 inch = 500 feet
when printed at 11"x17"



T55, PEM
47,478 SF

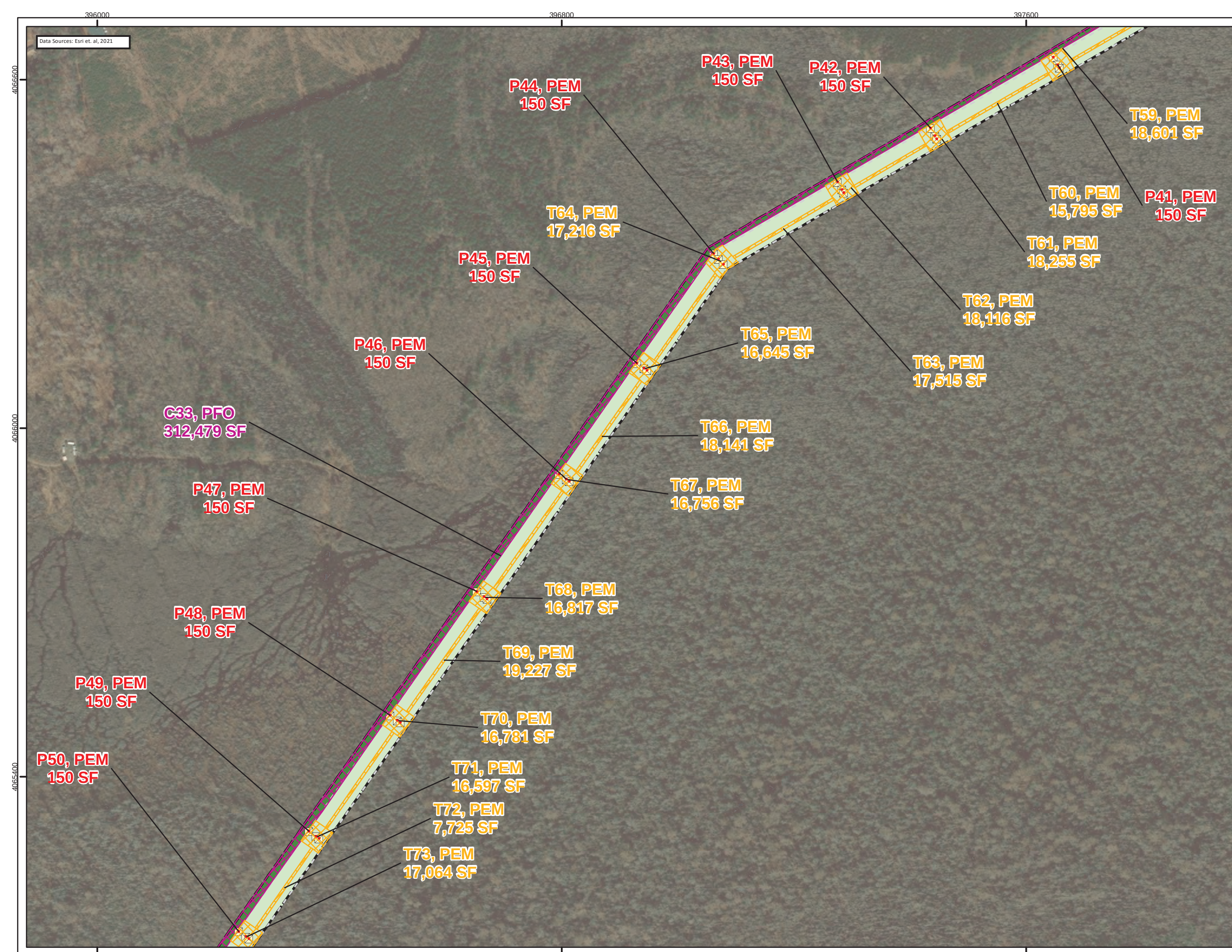
T56, PEM
15,411 SF

P39, PEM
150 SF

T57, PEM
16,598 SF

P40, PEM
150 SF

T58, PEM
18,301 SF



USACE-NLW
RCVD 12/14/2022

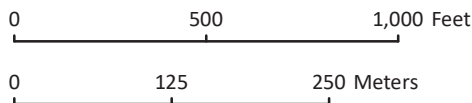
**COASTAL VIRGINIA OFFSHORE
WIND:
JOINT PERMIT APPLICATION
ONSHORE IMPACT MAP**



Legend

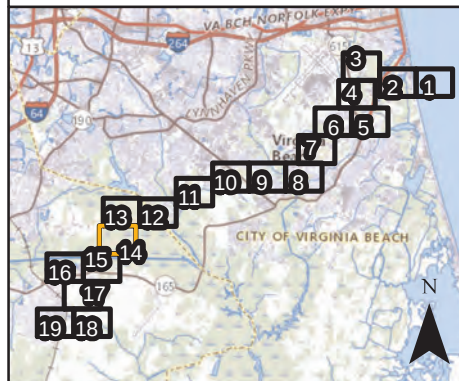
-  Project Area
-  Existing Right-of-Way
-  Proposed Structure
- Delineated Wetland**
-  Palustrine Emergent
-  Palustrine Forested
- Wetland Impact**
-  Temporary Impact
-  Permanent Impact
-  Conversion Impact

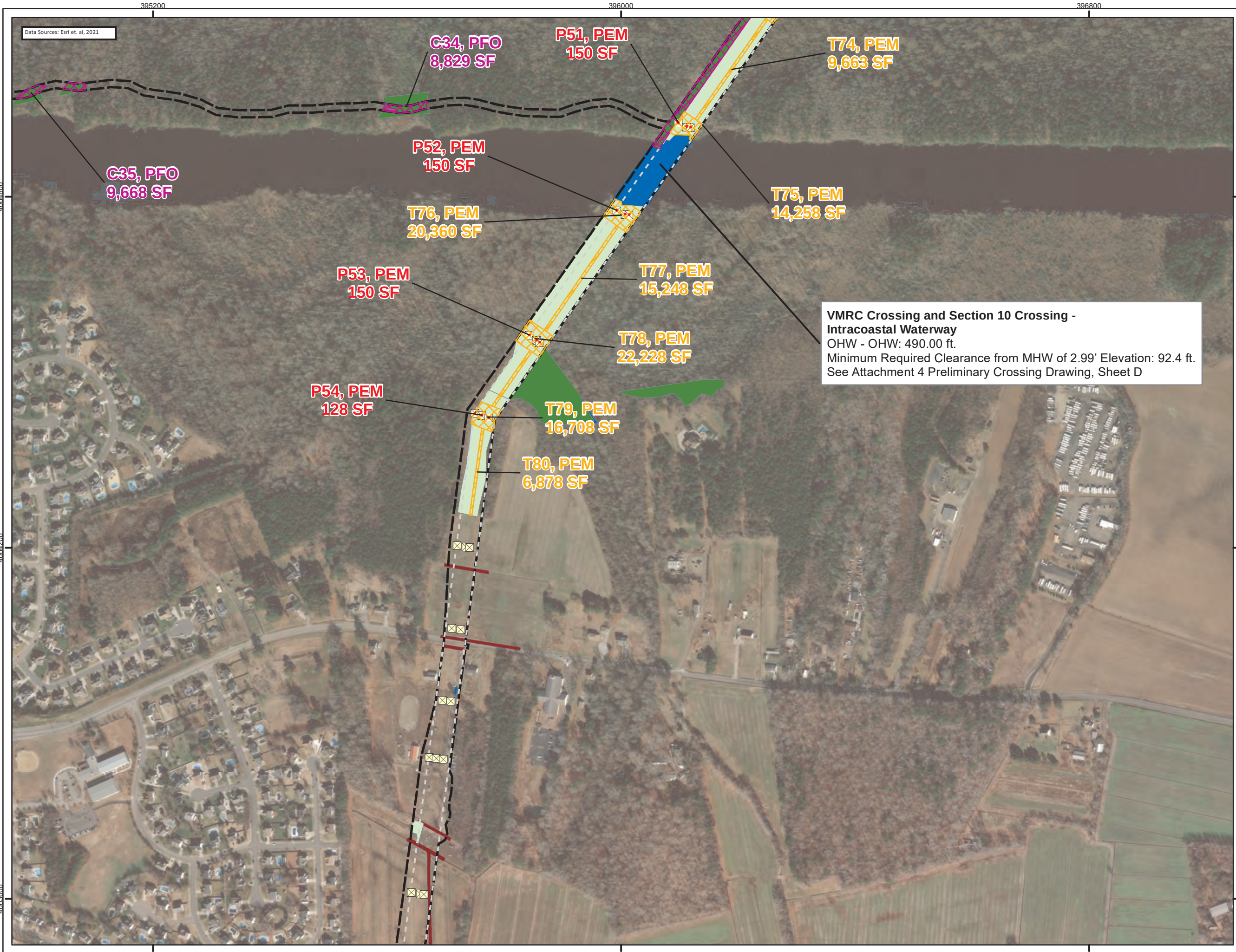
Date	12/1/2022
Projection	NAD 1983 2011 UTM Zone 18N
Personnel	Figure Prepared by: Tetra Tech Offshore GIS Group



1 inch = 500 feet
when printed at 11"x17"

REFERENCE MAP





USACE-NLW
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COASTAL VIRGINIA OFFSHORE
WIND:
JOINT PERMIT APPLICATION
ONSHORE IMPACT MAP

Legend

Project Area

Existing Right-of-Way

Proposed Structure

Ditch

Stream

Delineated Wetland

Palustrine Emergent

Palustrine Forested

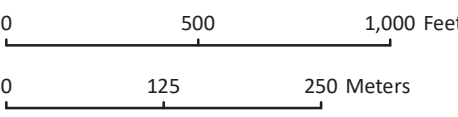
Wetland Impact

Temporary Impact

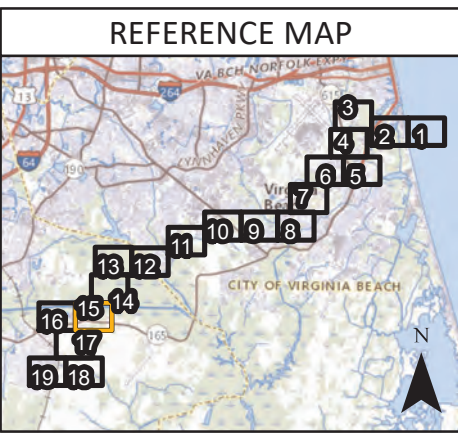
Permanent Impact

Conversion Impact

Date	12/1/2022
Projection	NAD 1983 2011 UTM Zone 18N
Personnel	Figure Prepared by: Tetra Tech Offshore GIS Group



1 inch = 500 feet
when printed at 11"x17"



Data Sources: Esri et. al, 2021

4064300

4064200

4063600

393600

394400

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RCVD 12/14/2022

COASTAL VIRGINIA OFFSHORE
WIND:
JOINT PERMIT APPLICATION
ONSHORE IMPACT MAP

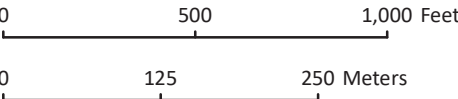


Legend

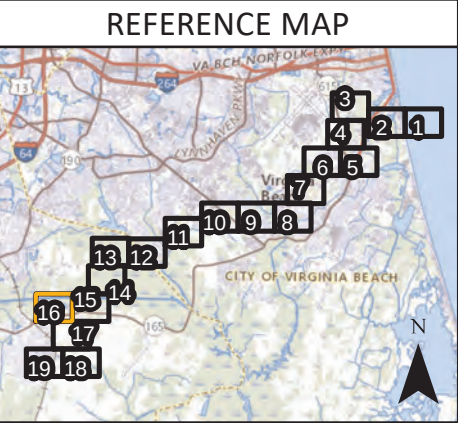
- Project Area
- Stream
- Delineated Wetland**
 - Palustrine Forested
- Wetland Impact**
 - Conversion Impact

C36, PFO
18,908 SF

Date	12/1/2022
Projection	NAD 1983 2011 UTM Zone 18N
Personnel	Figure Prepared by: Tetra Tech Offshore GIS Group



1 inch = 500 feet
when printed at 11"x17"



394400

395200

Data Sources: Esri et. al, 2021

P55, PEM
100 SF

T81, PEM
10,218 SF

T82, PEM
1,279 SF

T83, PEM
4,598 SF

P56, PEM
150 SF

C37, PFO
4,484 SF

T84, PEM
16,612 SF

P57, PEM
150 SF

T85, PEM
12,762 SF

T86, PEM
22,219 SF

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RCVD 12/14/2022

COASTAL VIRGINIA OFFSHORE

WIND:
JOINT PERMIT APPLICATION
ONSHORE IMPACT MAP



Dominion
Energy



Legend

- Project Area
- Existing Right-of-Way
- Proposed Structure
- Ditch
- Stream
- Waterbody
- Delineated Wetland**
 - Palustrine Emergent
 - Palustrine Forested
- Wetland Impact**
 - Temporary Impact
 - Permanent Impact
 - Conversion Impact

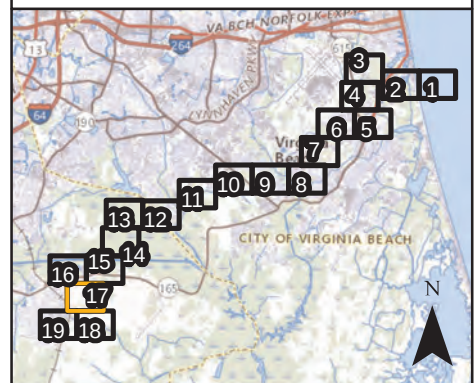
Date	12/1/2022
Projection	NAD 1983 2011 UTM Zone 18N
Personnel	Figure Prepared by: Tetra Tech Offshore GIS Group

0 500 1,000 Feet

0 125 250 Meters

1 inch = 500 feet
when printed at 11"x17"

REFERENCE MAP



4063000

4062400

Legend

 Project Area

 Existing Right-of-Way

 Proposed Structure

 Ditch

 Stream

Delineated Wetland

 Palustrine Emergent

 Palustrine Forested

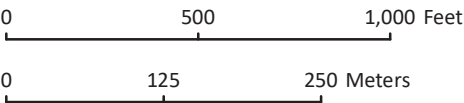
Wetland Impact

 Temporary Impact

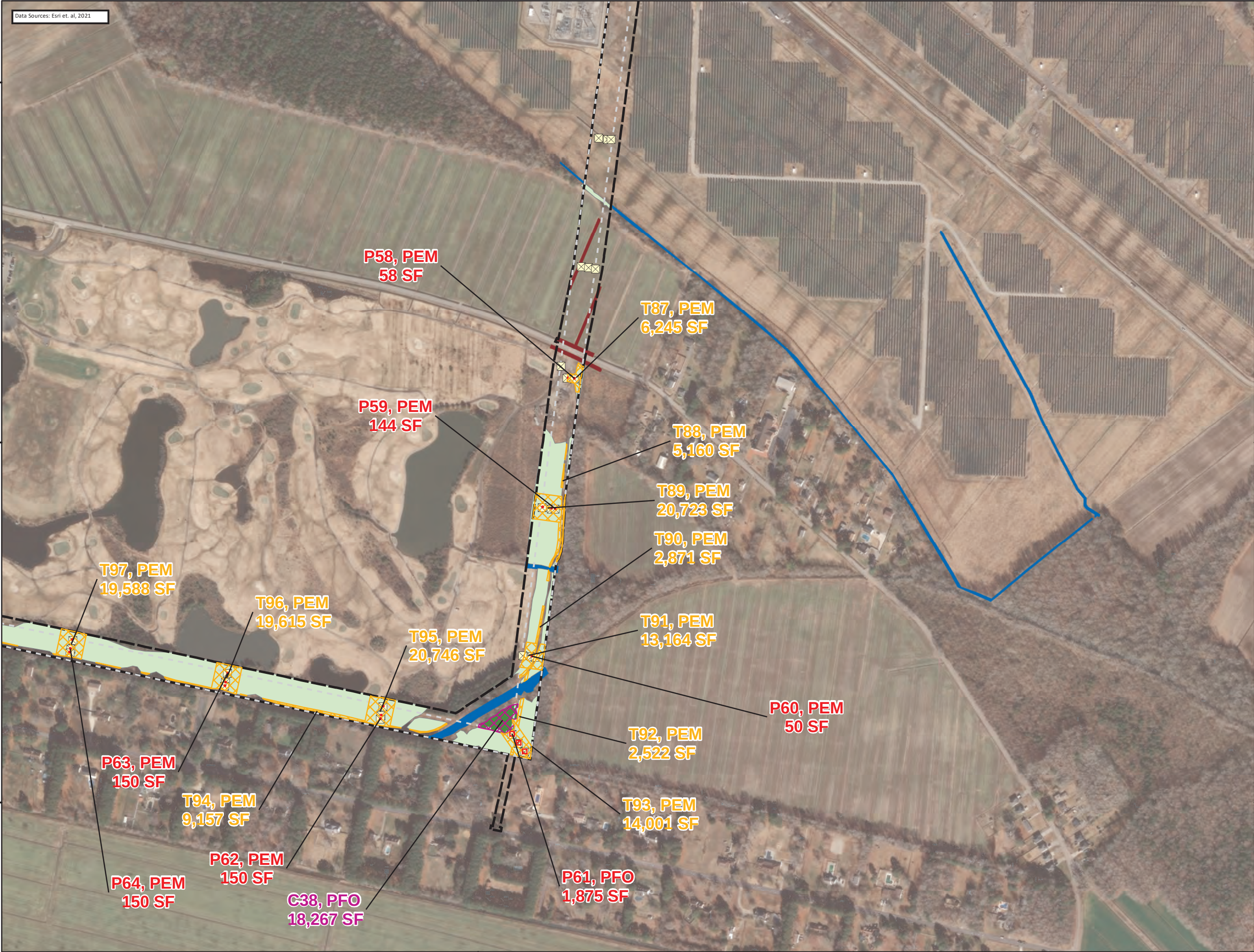
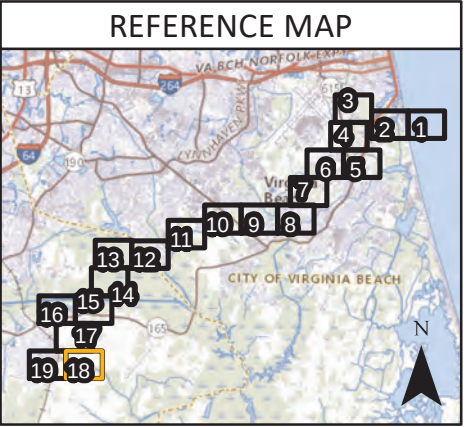
 Permanent Impact

 Conversion Impact

Date	12/1/2022
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Personnel	Figure Prepared by: Tetra Tech Offshore GIS Group



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Data Sources: Esri et. al, 2021

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COASTAL VIRGINIA OFFSHORE
WIND:
JOINT PERMIT APPLICATION
ONSHORE IMPACT MAP



Legend

Project Area

Existing Right-of-Way

Proposed Structure

Ditch

Stream

Waterbody

Delineated Wetland

Palustrine Emergent

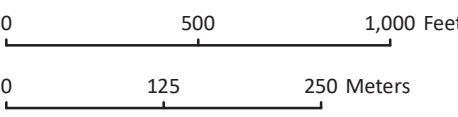
Palustrine Forested

Wetland Impact

Temporary Impact

Permanent Impact

Date	12/1/2022
Projection	NAD 1983 2011 UTM Zone 18N
Personnel	Figure Prepared by: Tetra Tech Offshore GIS Group



1 inch = 500 feet
when printed at 11"x17"

