

South Carolina Department of Health and Environmental Control
Division of Ocean and Coastal Resource Management
1362 McMillan Avenue, Suite 400
Charleston, South Carolina 29405

July 6, 2015
Permit Application Public Notice

Kiawah Island Utility Inc, OCRM-15-210-E

The Department has received an application for a permit for the alteration of a critical area. The application was submitted pursuant to the Coastal Zone Management Act (Act 123) of 1977 South Carolina General Assembly. The application in brief, is described as follows:

LOCATION: On and adjacent to Kiawah River and the marshes at Bryans Dairy Road, Johns Island, Charleston County, South Carolina. TMS: N/A.

WORK: The work as proposed consists of installing a new water line. Specifically, the applicant seeks to install a second ("redundant") water main from SJWC. The applicant will be directional boring to cross under the Kiawah River before it reaches Kiawah Island where open trench and backfill methodology will be reinstated until it reaches the existing pump station. The new 16" waterline will impact 0.05 acres of critical area and another 1.05 acres of critical area is proposed to serve as a temporary staging area for the directional boring. The area will be restored to pre-construction conditions after construction. The work as described is for construction of a backup waterline.

This public notice is being distributed to all known interested persons and agencies to assist in developing facts on which a decision by the Department can be based. Comments concerning the proposed work must be submitted in writing, setting forth sufficient detail to furnish a clear understanding of the reasons for support or opposition.

Comments regarding this application must be received by the Department on or before **August 5, 2015**. For more information, please contact: **Bill Eiser** at 843-953-0237 or via email at eiserwc@dhec.sc.gov.

NOTE: Plans depicting the proposed work are available and will be provided upon receipt of a written request or may be viewed on the Department website at <http://www.scdhec.gov/Apps/Environment/PublicNotices>.

Attachments**Description of Dimensions, General Specifications, and Purpose of the Project:**

Kiawah Island Utility (KIU) is the water and sewer provider for Kiawah Island, Charleston County, South Carolina. The KIU water system was developed in the early 1980's, and uses a single 16" DIP water main crossing under the Kiawah River. KIU purchases water wholesale from St. Johns Water Company (SJWC). During the last few years Kiawah Island's single supply line has developed numerous leaks. These leaks are becoming more frequent, which is alarming since a major line break would eliminate the source of potable water for the island and severely limit fire protection. For these reasons a second, or redundant, water main from SJWC is being proposed for installation. The second line will not increase capacity, but will serve as a backup in case of a line failure of the existing 16" main under the Kiawah River.

The new 16" redundant water supply main will connect to an existing 24" St. John's Water Company water main adjacent to Briar's Creek Golf. The new water main will initially travel east for approximately 0.5 miles, then turn south towards the Kiawah River. The 16" redundant water supply main will be installed through open trench and backfill methodology and the installation will not directly impact any wetlands or other waters of the US, except 0.05 acres of freshwater wetland for permanent road access. The applicant will use directional boring technology to cross under Kiawah River (Frac-out plan attached) before it reaches Kiawah Island, where open trench and backfill methodology will be reinstated until it reaches the existing down island pump station. Once installed, the new 16" redundant water supply main ownership will be transferred to and maintained by Kiawah island Utilities, Inc.

As a result of the project approximately 0.05 acres of critical area/TNW, and approximately 0.02 acres of freshwater wetlands, will be temporarily impacted while installing the 16" water main using open trench and backfill methodology. Approximately 0.05 acres of permanent freshwater wetland fill impact is being proposed. This permanent fill impact will serve as gravel access road for inspection and maintenance of the proposed 16" water main.

Approximately 1.05 acres (5,920 cubic yards) of critical area/TNW are being proposed to be temporarily filled to serve as a temporary staging area for the Horizontal Directional Drill (HDD) construction equipment. A geotextile layer will be placed on the existing ground, and then fill material will be brought in from a nearby upland source in order to create an elevated pad for the HDD construction equipment. Upon completion of the construction activities, the fill material will be removed, and the areas will be restored to pre-construction conditions.

Locations of the Project Site

From Charleston proceed toward Folly Beach on SC Highway 171. After the Wappoo Bridge turn right onto Maybank Highway toward John's Island. Once on John's Island, turn right onto Maybank Road/River Road intersection, turn left onto River Road. Proceed approximately 4 miles and turn

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CHARLESTON OFFICE

left onto Bryans Dairy Road. Travel approximately 0.75 miles and turn right onto an unnamed Berkeley Electric Cooperative (BEC) right-of-way and proceed approximately 0.5 miles to a BEC substation. The project area is immediately west to the BEC substation.

Kiawah Island Utility, Inc

OCRM-15-210-E

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CHARLESTON OFFICE

Frac-Out Response Plan
Kiawah Island Utility, Inc.
Kiawah Island Redundant Water Supply Main

1. Introduction: Prior to initiating construction activities Kiawah Island Utility, Inc. (KIU), permittee, and the project engineer, will ensure that the contractor and all personnel involved are made aware of and understands the permit and its requirements, including any special conditions of the permit, monitoring of the project required by the permit, implementation of the Frac-Out Response Plan and the implementation of Best Management Practices (BMP) during all phases of construction that are designed to prevent release of sediment or deleterious substances into adjacent wetlands or waterways. Additionally, wetland boundaries will be marked in the field and silt fencing will be established along these boundaries by the contractor prior to any other land disturbing activities on site.

2. Monitoring: Monitoring the project site during all phases of construction will be conducted by the contractor and the project engineer. The contractor will visually inspect the project site twice daily (AM & PM) for compliance with BMP's and to ensure that work is proceeding as permitted and conditions are such that problems are not anticipated and a Frac-Out has not occurred. The engineer will also monitor the project site on a daily basis during the drilling operation. Inspection logs will be maintained on-site and will contain the date and time of all inspections and will note any problems or potential problems or other items of interest. All actions occurring on-site that cause problems with the work or a temporary stop in work will be noted in the log. Daily photographs will also document the progress of work, the integrity of any sediment control measures and compliance with permit conditions.

3. Stop Work: Upon discovery of a Frac-Out by the contractor or notification by the project engineer that a Frac-Out or other release of material or deleterious matter has occurred with potential for impacts to adjacent wetlands or waterways, the contractor will immediately stop all work. An exception to an immediate cessation of construction activities may be warranted if such stop could result in unsafe conditions for workers on-site or if stopping work would risk loss of the bore hole or could potentially result in more harm to the environment than continuing work. In any event, containment and notification of such release will immediately occur.

4. Containment: The contractor, under the supervision of the project engineer, will immediately implement measures to contain any release of sediment or other deleterious substance into adjacent wetlands or waterways. Containment measures may include silt fencing and sediment tube installation.

5. Contact: Once a Frac-Out is discovered by the contractor, the project engineer or the owners representative shall notify the United States Army Corps of Engineer (USACE)

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CHARLESTON OFFICE

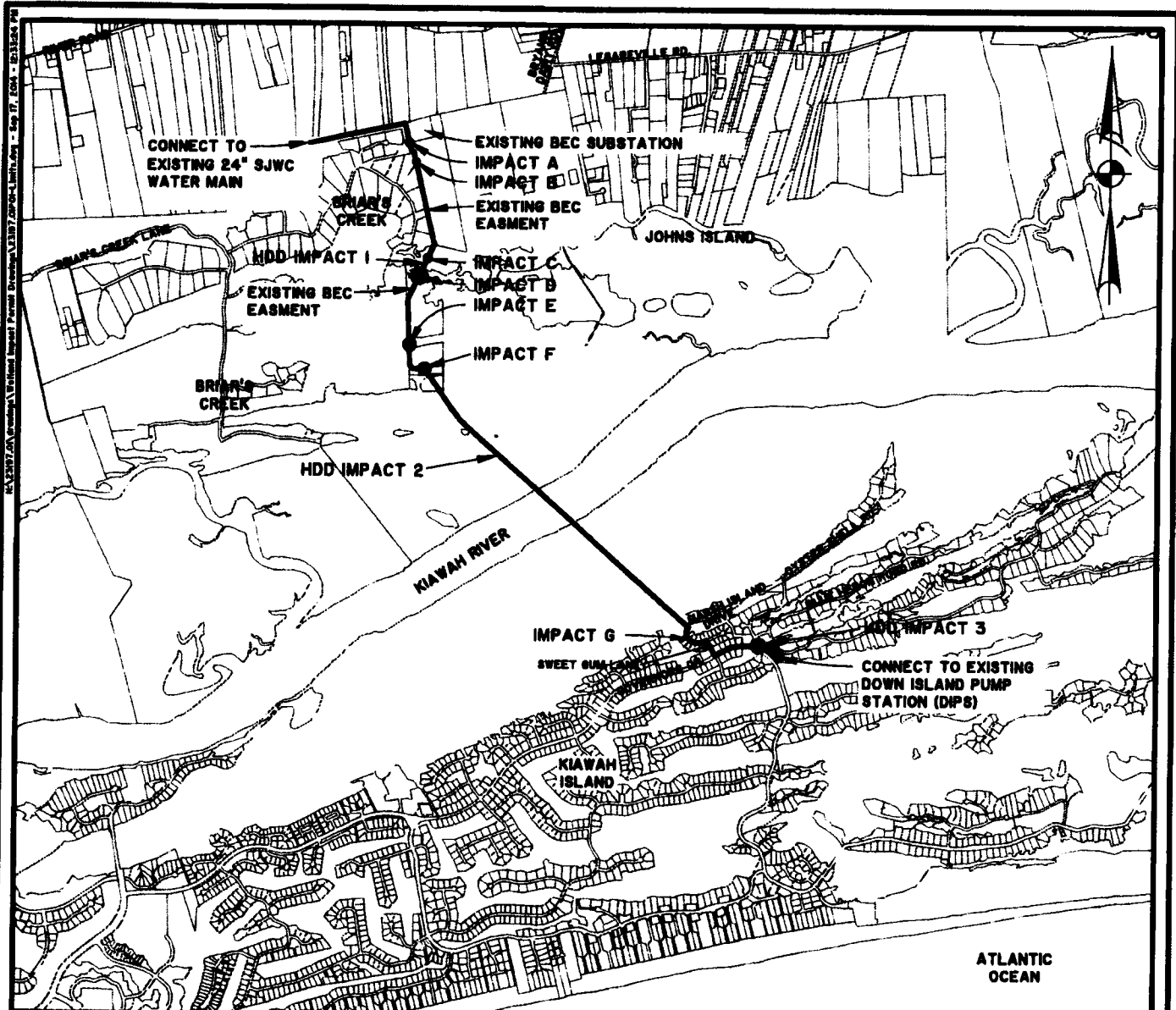
843-329-8044, South Carolina Department of Health and Environmental Control (SCDHEC) 843-722-4958, and permittee by the most timely means possible.

6. Clean up: The contractor, project engineer and permittee will coordinate with the USACE & SCDHEC to determine the most effective method of cleaning up the affected area(s) and appropriate methods for disposing of sediment or deleterious substance.

7. Restoration: The contractor, project engineer and permittee will consult and coordinate with USACE and SCDHEC to determine the most effective and efficient means of restoring the site, including stabilizing and re-vegetating as appropriate.

Kiawah Island Utility, Inc

OCRM-15-210-E



SCHEDULE OF DRAWINGS

SHT NO.	DESCRIPTION	SHT NO.	DESCRIPTION
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7	WETLAND IMPACT D		
8	WETLAND IMPACT E		
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Kiawah Island Utility, Inc

OCRM-15-210-E

PROJECT LIMITS

SCHEDULE OF DRAWINGS
 REDUNDANT WATER SUPPLY MAIN

CLIENT:
 KIAWAH ISLAND UTILITIES, INC.

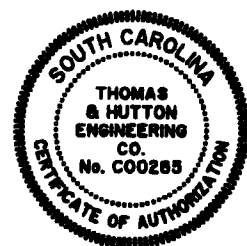
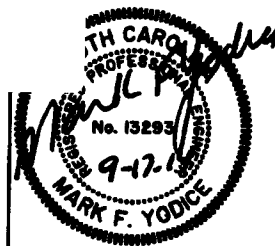
LOCATION: CHARLESTON COUNTY, SOUTH CAROLINA

DATE: 8/18/2014

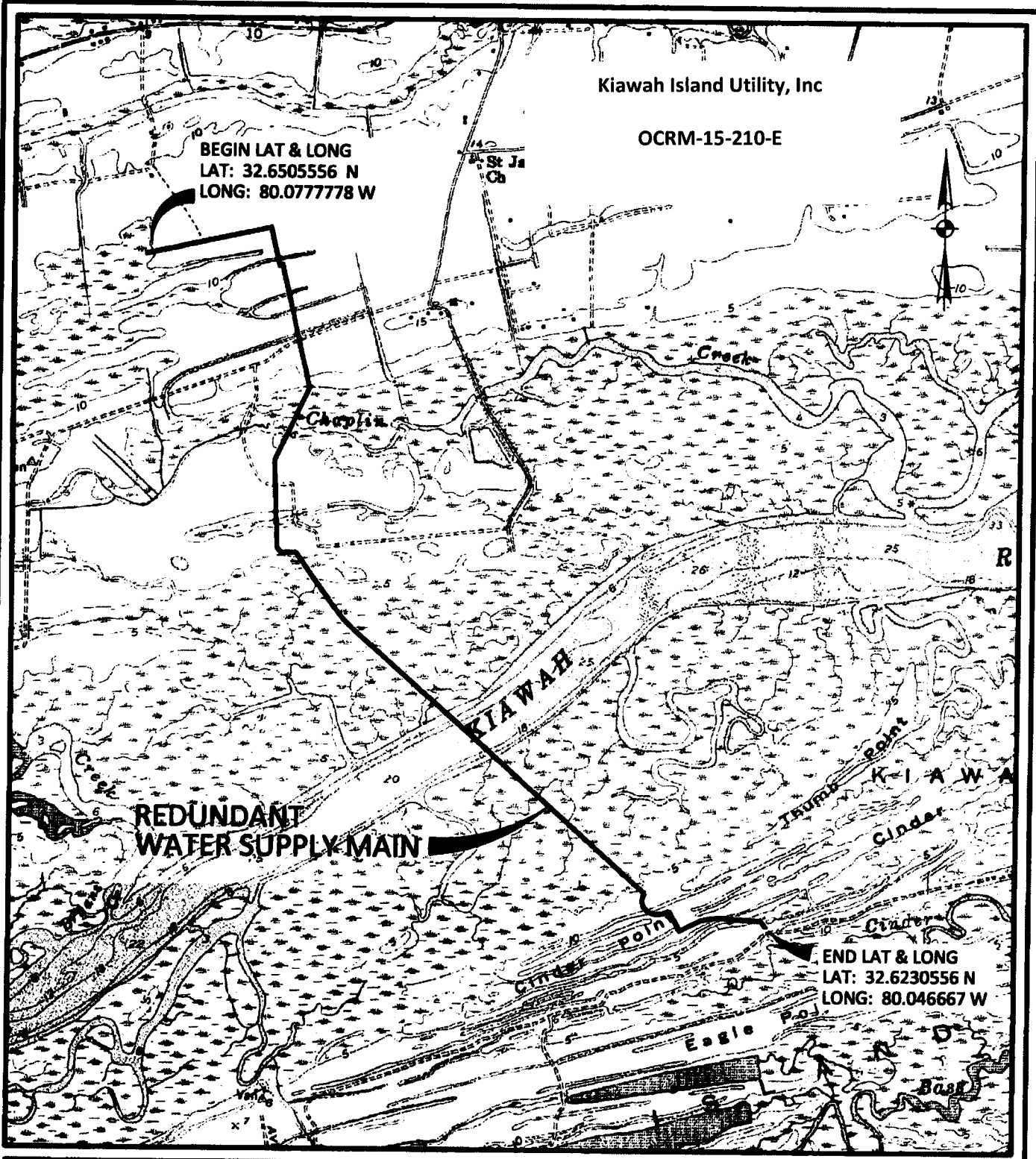
JOB NUMBER: J - 23197.00001

SHEET: 1 of 15

SCALE: 1" = 300'



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REDUNDANT WATER SUPPLY MAIN

SHEET:
 QUAD MAP LOCATION

CLIENT:
 KIAWAH ISLAND UTILITIES, INC.

LOCATION: KIAWAH ISLAND, CHARLESTON COUNTY, SC
 DATE: 8/18/2014
 JOB NUMBER: J- 23197.0001

SHEET: 2 of 15
 SCALE: 1" = 200'

M:\23197\04\Drawings\Wetland Impact Permit\Drawings\23197.0003 Legend.dwg - Sep 17, 2014 - 12:40:28 PM

WATER SYMBOLS

DESCRIPTION	EXISTING	PROPOSED
WATER MAIN	10" V	12" V
VALVE AND BOX	⊗	⊙
AIR RELEASE VALVE IN MH	⊗	⊙
VALVE IN MANHOLE	⊗	⊙
BUTTERFLY VALVE		⊙
FIRE HYDRANT W/VALVE & BOX	⊗	⊙
SERVICE	---	---
NHD WATER MAIN (HORIZONTAL DIRECTIONAL DRILL)		---

SEWER SYMBOLS

DESCRIPTION	EXISTING	PROPOSED
SANITARY MANHOLE	○	
PUMP STATION		
AIR RELEASE VALVE IN MH	⊗	
SANITARY SEWER PIPE	6" S	

EROSION CONTROL SYMBOLS

DESCRIPTION	EXISTING	PROPOSED
SLT FENCE		—GF—GF—
TREE TO BE REMOVED		✕
TREE TO BE PROTECTED		□
FENCE		—X—X—

DRAINAGE SYMBOLS

DESCRIPTION	EXISTING	PROPOSED
CURB INLET TYPE "A"	⊗	
GRATE INLET	⊗	
OUTFALL CONTROL STRUCTURE	⊗	
STORM MANHOLE OR JUNCTION BOX	⊗	
TYPE 9 INLET	⊗	
RP RAP	⊗	
CONCRETE CURB & GUTTER	---	
STORM PIPE	30" 30"	
GRASSED SWALE	←←←	
DITCH	---	

TOPOGRAPHY SYMBOLS

DESCRIPTION	EXISTING	PROPOSED
RIGHT-OF-WAY LINE	---	---
PROPERTY LINE	---	---
E ROAD	---	---
EASEMENT	---	---
TREE LINE	~~~~~	---
LAKE NORMAL WATER SURFACE BOUNDARY CONTOUR	~~~~~	---
PARCEL BOUNDARY LINE	---	---
LIMITS OF DISTURBANCE	---	---
COE FRESHWATER WETLAND	---	---
FRESHWATER WETLAND BUFFER	---	---
OCRM CRITICAL LINE	---	---
PHASE LINE		---
FRESHWATER WETLAND SYMBOL		⬇
CRITICAL AREA SYMBOL (SALTYWATER WETLAND)		⊗
GRAND TREE		⊙
SIGNIFICANT TREE		⊙
SPOT ELEVATION		+5.5
TREE PROTECTION		⊙

ABBREVIATIONS

ADG	ADVANCED DRAINAGE SYSTEMS (CORRUGATED PLASTIC PIPE)	PVC	POLYVINYL CHLORIDE
ARV	AIR RELEASE VALVE	RCP	REINFORCED CONCRETE PIPE
BFV	BUTTERFLY VALVE	RJ	RESTRAINED JOINT
BTM	BOTTOM	SS	SANITARY SEWER
CI	CAST IRON	TC	TOP OF CURB
CMPA	CORRUGATED METAL PIPE ARCH	TS	TOP OF GUTTER
CMP	CORRUGATED METAL PIPE	TP	TOP OF PAVEMENT
DI	DUCTILE IRON	TPPE	TOP OF PIPE
DI	DUCTILE IRON	TS	TOP OF SLAB
DI	DUCTILE IRON PIPE	TW	TOP OF WALK
EL	ELEVATION	TYP	TYPICAL
FG	FISHED GRADE	W	WATER
FL	FLANDED	W/	WITH
FM	FORCE MAIN (SANITARY SEWER)	WV	WATER VALVE
FR	FRAME	"	DIAMETER
GI	GRATE INLET		
HDD	HORIZONTAL DIRECTIONAL DRILL		
IE	INVERT ELEVATION	DAY	DAY
KIU	KIAWAH ISLAND UTILITIES, INC.	CD	CEDAR
LF	LINEAR FEET	CYP	CYPRESS
MAX	MAXIMUM	LO	LIVE OAK
MIN	MINIMUM	OAK	MISC. OAK
MJ	MECHANICAL JOINT	MAG	MAGNOLIA
OC	ON CENTER	MRT	MYRTLE
PC	POINT OF CURVE	PN	PALM
PEJ	PREGROUED EXPANSION JOINT	PN	PINE
PT	POINT OF TANGENT		

REDUNDANT

SHEET:
LEGEND & ABB

CLIENT:

KIAWAH ISLAND UTILITIES, INC.

LOCATION: CHARLESTON COUNTY, SOUTH CAROLINA

DATE: 8/18/2014

JOB NUMBER: J - 23197.0001

Kiawah Island Utility, Inc

OCRM-15-210-E

SHEET: 3 OF 15

SCALE: NA





PERMANENT WETLAND IMPACT (GRAVEL ACCESS ROAD)

TEMPORARY WETLAND IMPACT

LEGEND



THREE 25L-00-00-048
BERKELEY COUNTY ELECTRIC
COOPERATIVE, INC.
PLAT BOOK 87, PAGE 157

PERMANENT WETLAND IMPACT A
(0.06 AC.) WITH FILL

NEW 20' KIU GENERAL
UTILITY EASEMENT

7' CHAIN LINK FENCE

TEMPORARY
SILT FENCE (TYP)

SF

PROPOSED
16" WATER MAIN
INSTALLED BY
OPEN CUT

FRESHWATER WETLAND LINE

FRESHWATER
WETLAND LINE

FRESHWATER
WETLAND

FRESHWATER
WETLAND

Kiawah Island Utility, Inc

OCRM-15-210-E

WETLAND IMPACT A

PROPOSED ACTIVITY:

REDUNDANT WATER SUPPLY MAIN

CLIENT:

KIAWAH ISLAND UTILITIES, LLC

LOCATION: CHARLESTON COUNTY, SOUTH CAROLINA

DATE: 8/18/2014

JOB NUMBER: J - 23197.0001

SHEET: 4 OF 15

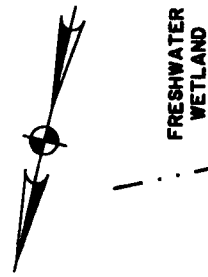
SCALE: 1" = 50'



LEGEND

PERMANENT WETLAND IMPACT

TEMPORARY WETLAND IMPACT



FRESHWATER WETLAND

FRESHWATER WETLAND LINE

16" WATER MAIN INSTALLED BY OPEN CUT

TEMPORARY SILT FENCE (TYP)

NEW 20' KIU GENERAL UTILITY EASEMENT

25" ELECTRIC CABLE R/W

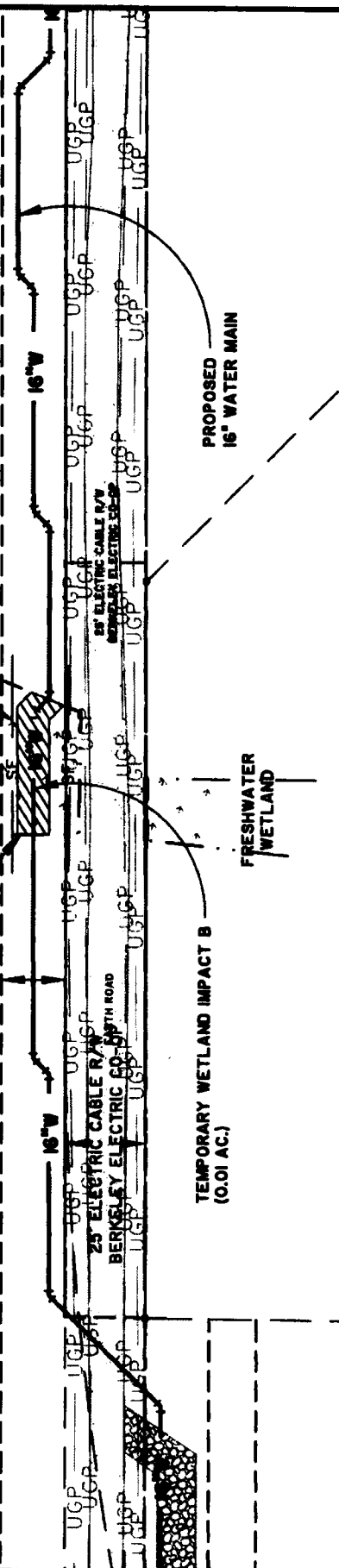
BERNARDY ELECTRIC CO-OP

8" ELECTRIC CABLE R/W

BERNARDY ELECTRIC CO-OP

TEMPORARY WETLAND IMPACT B (0.01 AC.)

PROPOSED 16" WATER MAIN



Kiawah Island Utility, Inc

OCRM-15-210-E

WETLAND IMPACT B

PROPOSED ACTIVITY:

REDUNDANT WATER SUPPLY MAIN

CLIENT:

KIAWAH ISLAND UTILITIES, LLC

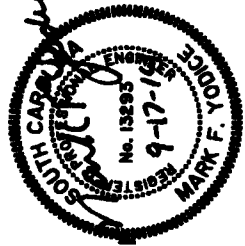
LOCATION: CHARLESTON COUNTY, SOUTH CAROLINA

DATE: 8/18/2014

JOB NUMBER: J - 23197.0001

SHEET: 5 OF 15

SCALE: 1" = 50'



Kiawah Island Utility, Inc

OCRM-15-210-E

LEGEND



PERMANENT WETLAND IMPACT



TEMPORARY WETLAND IMPACT



SALTWATER WETLAND

PROPOSED DRILL SITE
(HIGHLAND AREA)

TMS# 261-00-00-013
BRYAN DAIRY
DEED BOOK W048, PAGE 113

BEGIN HORIZONTALLY
DRILLED SECTION

FRESHWATER
WETLAND

CRITICAL LINE/TNW

SALTWATER
WETLAND

PROPOSED
16" WATER MAIN INSTALLED BY HDD
(HORIZONTAL DIRECTIONAL DRILL)

CRITICAL LINE/TNW

NEW 20' KU GENERAL
UTILITY EASEMENT

TEMPORARY
SILT FENCE (TYP)

SF

FRESHWATER
WETLAND

TEMPORARY MARSH MAT
PLACEMENT FOR
ACCESS

SALTWATER
WETLAND

25' ELECTRIC CABLE R/V
BERKELEY ELECTRIC CO-DR

TEMPORARY WETLAND IMPACT C
FRESHWATER (0.01 AC.)
SALTWATER (0.01 AC.)

TMS# 261-00-00-013
BRYAN DAIRY
DEED BOOK W048, PAGE 113

TMS# 260-00-00-113
BRIARS CREEK GOLF, LLC
PLAT BOOK EL, PAGE 396

WETLAND IMPACT C

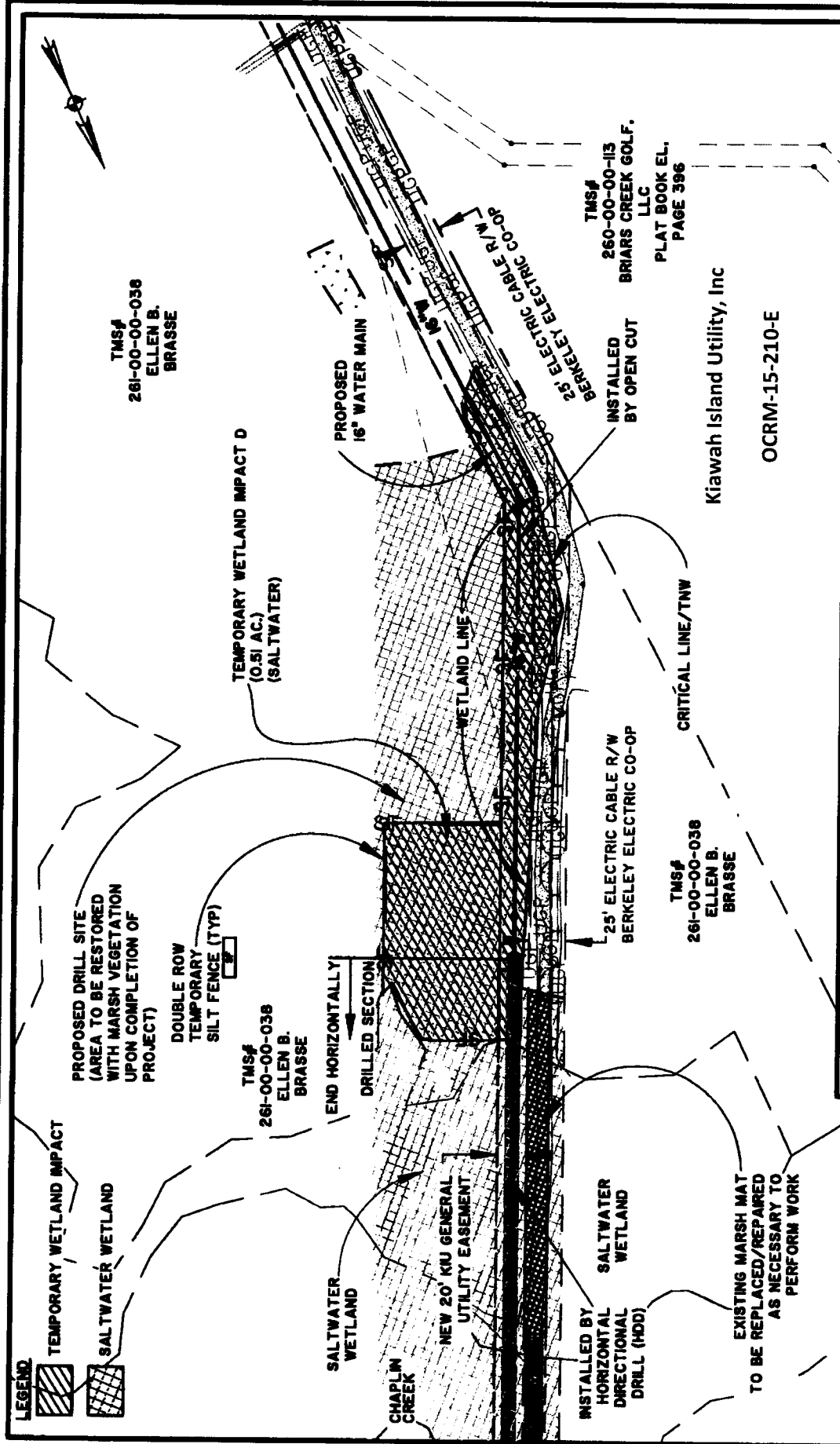
PROPOSED ACTIVITY:
REDUNDANT WATER SUPPLY MAIN

CLIENT:
KIAWAH ISLAND UTILITIES, LLC

LOCATION: CHARLESTON COUNTY, SOUTH CAROLINA
DATE: 8/18/2014
JOB NUMBER: J - 23197.0001

SHEET: 6 OF 15
SCALE: 1" = 50'





TMS#
261-00-00-036
ELLEN B.
BRASSE

TEMPORARY WETLAND IMPACT D
(0.51 AC.)
(SALTWATER)

PROPOSED
16" WATER MAIN

25' ELECTRIC CABLE R/W
BERKELEY ELECTRIC CO-OP

TMS#
260-00-00-113
BRIARS CREEK GOLF,
LLC
PLAT BOOK EL,
PAGE 396

INSTALLED
BY OPEN CUT

Kiawah Island Utility, Inc

OCRM-15-210-E

PROPOSED DRILL SITE
(AREA TO BE RESTORED
WITH MARSH VEGETATION
UPON COMPLETION OF
PROJECT)

DOUBLE ROW
TEMPORARY
SILT FENCE (TYP)

TMS#
261-00-00-036
ELLEN B.
BRASSE

END HORIZONTALLY
DRILLED SECTION

25' ELECTRIC CABLE R/W
BERKELEY ELECTRIC CO-OP

TMS#
261-00-00-036
ELLEN B.
BRASSE

CRITICAL LINE/TNW

TEMPORARY WETLAND IMPACT

SALTWATER WETLAND

SALTWATER WETLAND

CHARLTON CREEK

NEW 20' KIU GENERAL
UTILITY EASEMENT

SALTWATER WETLAND

EXISTING MARSH MAT
TO BE REPLACED/REPAIRED
AS NECESSARY TO
PERFORM WORK

INSTALLED BY
HORIZONTAL
DIRECTIONAL
DRILL (HDD)

WETLAND IMPACT D

PROPOSED ACTIVITY:

REDUNDANT WATER SUPPLY MAIN

CLIENT:

KIAWAH ISLAND UTILITIES, LLC

LOCATION: CHARLESTON COUNTY, SOUTH CAROLINA

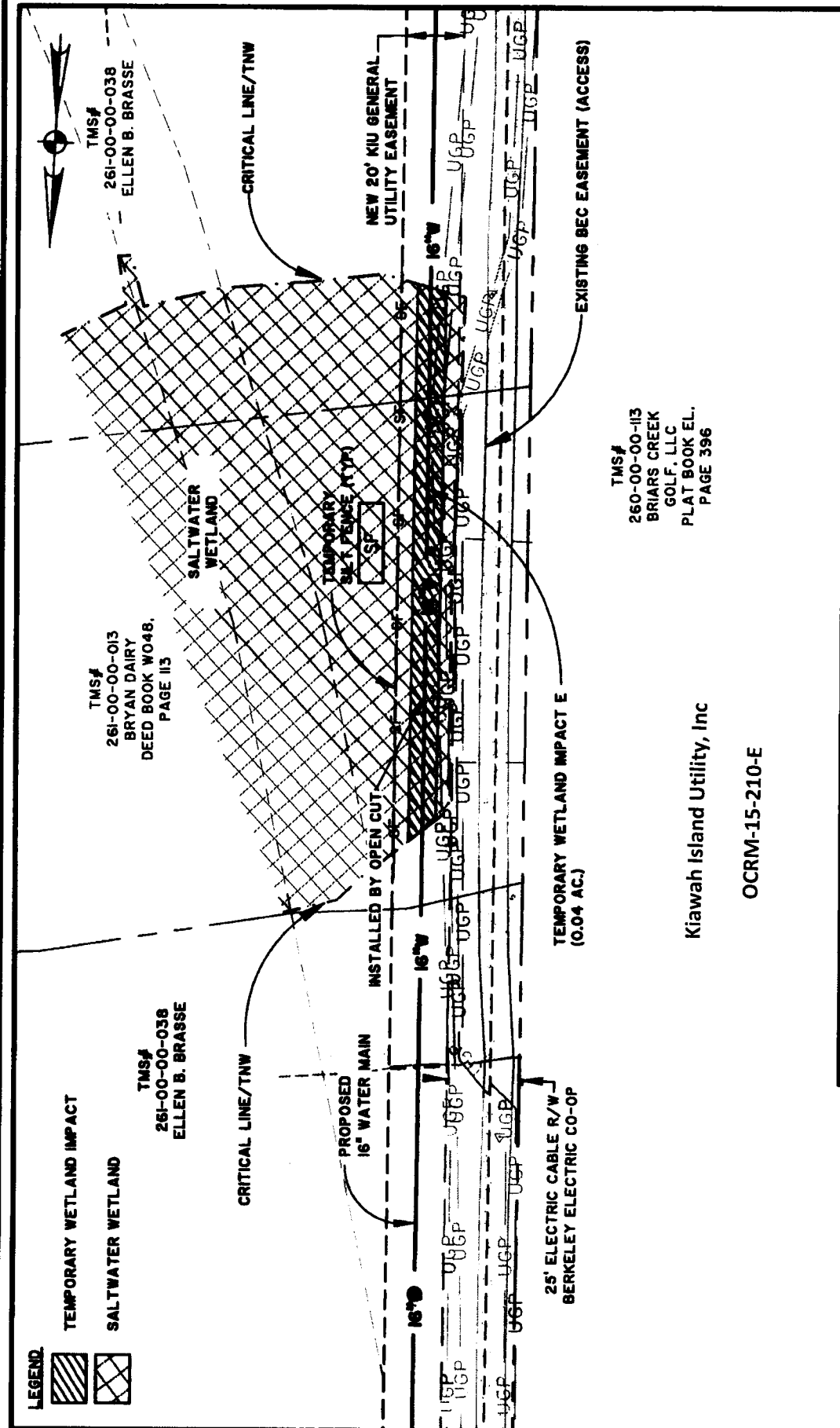
DATE: 8/18/2014

JOB NUMBER: J - 23197.0001

SHEET: 7 OF 15

SCALE: 1" = 100'





TMS#
261-00-00-038
ELLEN B. BRASSE

TMS#
261-00-00-013
BRYAN DAIRY
DEED BOOK W048,
PAGE 113

TMS#
261-00-00-038
ELLEN B. BRASSE

NEW 20' KIU GENERAL
UTILITY EASEMENT

TEMPORARY WETLAND IMPACT E
(0.04 AC.)

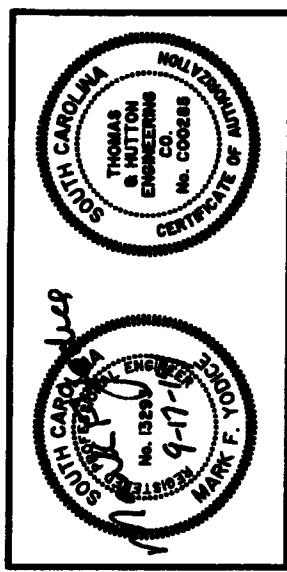
TMS#
260-00-00-113
BRIARS CREEK
GOLF, LLC
PLAT BOOK EL,
PAGE 396

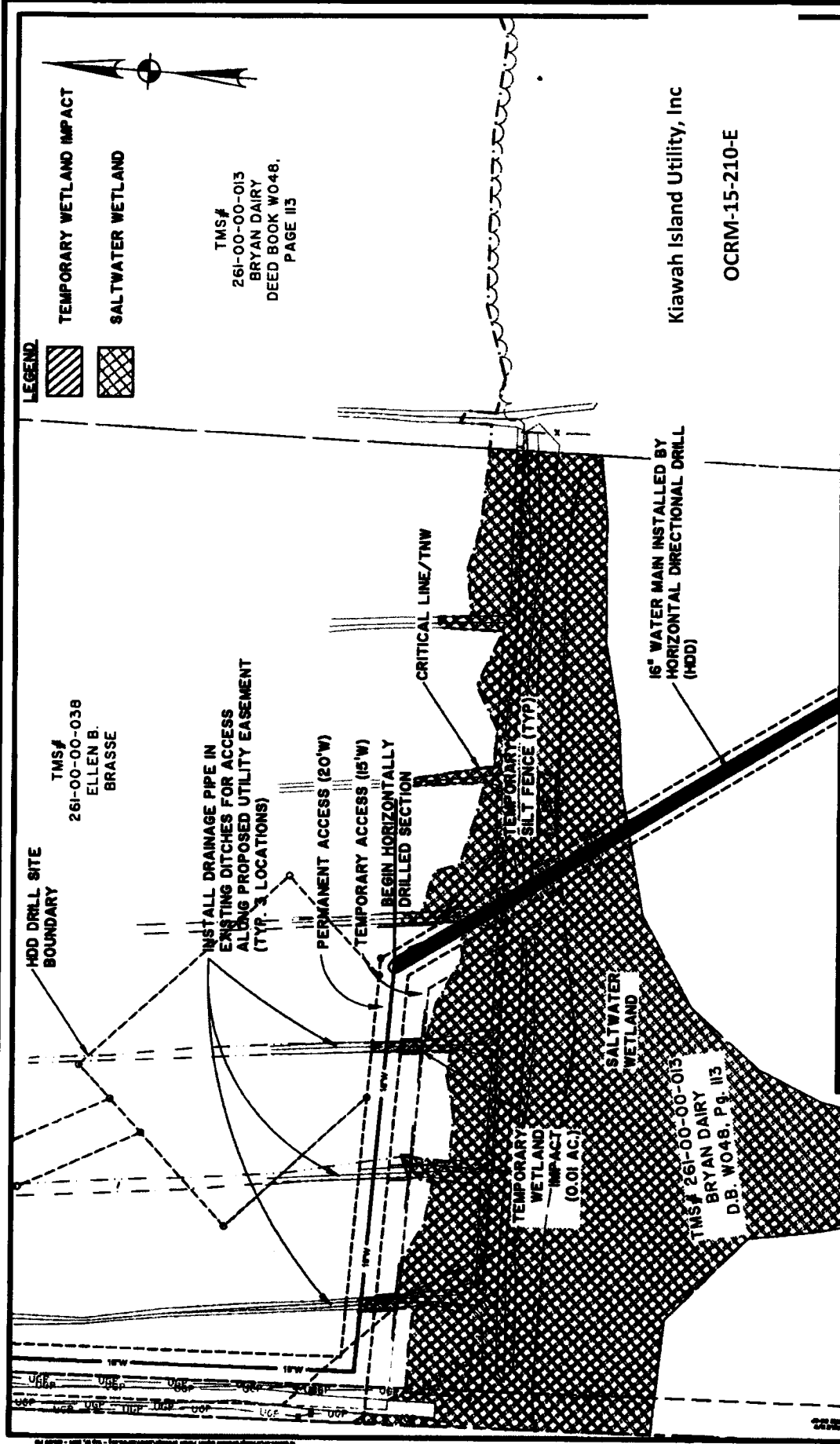
EXISTING BEC EASEMENT (ACCESS)

Kiawah Island Utility, Inc

OCRM-15-210-E

WETLAND IMPACT E
 PROPOSED ACTIVITY:
 REDUNDANT WATER SUPPLY MAIN
 CLIENT:
 KIAWAH ISLAND UTILITIES, LLC
 LOCATION: CHARLESTON COUNTY, SOUTH CAROLINA
 DATE: 8/18/2014
 JOB NUMBER: J - 23197.0001





TEMPORARY WETLAND IMPACT

SALTWATER WETLAND

TMS#
261-00-00-013
BRYAN DAIRY
DEED BOOK W048,
PAGE 113

TMS#
261-00-00-038
ELLEN B.
BRASSE

INSTALL DRAINAGE PIPE IN
EXISTING DITCHES FOR ACCESS
ALONG PROPOSED UTILITY EASEMENT
(TYP. 3 LOCATIONS)

PERMANENT ACCESS (20'W)

TEMPORARY ACCESS (15'W)

BEGIN HORIZONTALLY
DRILLED SECTION

CRITICAL LINE/TNW

TEMPORARY
WETLAND
IMPACT
(0.01 AC.)

SALTWATER
WETLAND

16" WATER MAIN INSTALLED BY
HORIZONTAL DIRECTIONAL DRILL
(HDD)

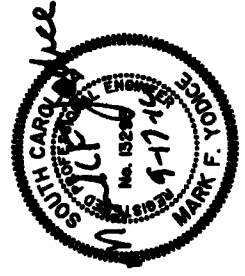
Kiawah Island Utility, Inc

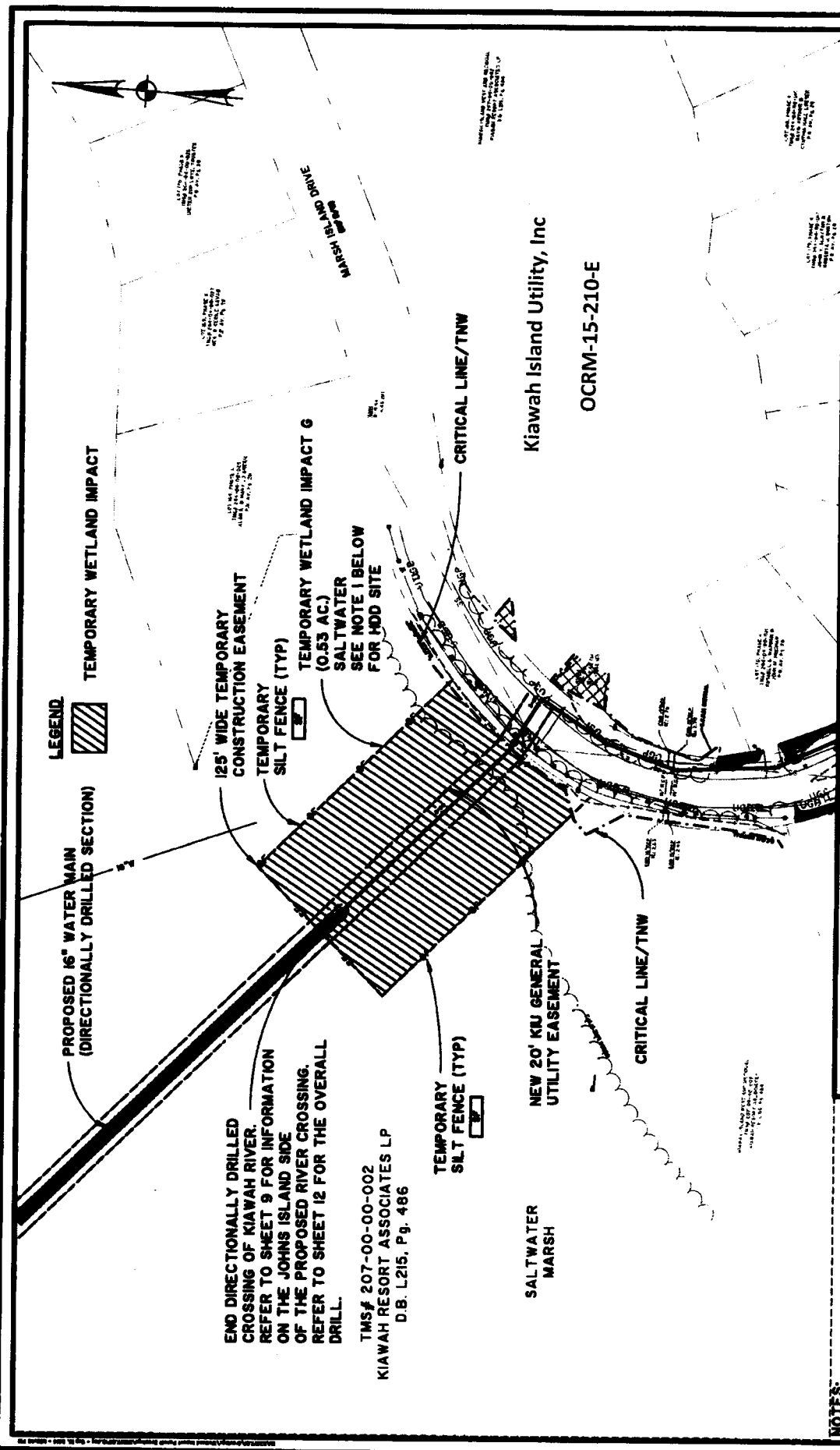
OCRM-15-210-E

WETLAND IMPACT F
PROPOSED ACTIVITY:
REDUNDANT WATER SUPPLY MAIN

CLIENT:
KIawah ISLAND UTILITIES, LLC
LOCATION: CHARLESTON COUNTY, SOUTH CAROLINA
DATE: 8/18/2014
JOB NUMBER: J - 23197.0001

SHEET: 9 OF 15
SCALE: 1" = 100'





LEGEND



TEMPORARY WETLAND IMPACT

PROPOSED 16" WATER MAIN
(DIRECTIONALLY DRILLED SECTION)

125' WIDE TEMPORARY
CONSTRUCTION EASEMENT

TEMPORARY
SILT FENCE (TYP)

TEMPORARY WETLAND IMPACT G
(0.53 AC.)
SALT WATER
SEE NOTE I BELOW
FOR HDD SITE

TEMPORARY
SILT FENCE (TYP)

SALT WATER
MARSH

NEW 20' KU GENERAL
UTILITY EASEMENT

CRITICAL LINE/TNW

CRITICAL LINE/TNW

Kiawah Island Utility, Inc

OCRM-15-210-E

END DIRECTIONALLY DRILLED
CROSSING OF KIAWAH RIVER.
REFER TO SHEET 9 FOR INFORMATION
ON THE JOHNS ISLAND SIDE
OF THE PROPOSED RIVER CROSSING.
REFER TO SHEET 12 FOR THE OVERALL
DRILL.

TMS# 207-00-00-002
KIAWAH RESORT ASSOCIATES LP
D.B. L215, Pg. 486

NOTES:

1. A GEOTEXTILE LAYER WILL BE PLACED ON THE EXISTING GROUND, THEN COVERED WITH FILL MATERIAL IN ORDER TO CREATE AN ELEVATED PAD FOR THE HORIZONTAL DIRECTIONAL DRILL (HDD) CONSTRUCTION EQUIPMENT. UPON COMPLETION OF THE CONSTRUCTION ACTIVITIES, THE FILL MATERIAL AND THE GEOTEXTILE LAYER WILL BE REMOVED, AND THE AREA RESTORED TO PRE-CONSTRUCTION CONDITIONS.

WETLAND IMPACT G

PROPOSED ACTIVITY:

REDUNDANT WATER SUPPLY MAIN

CLIENT:

KIAWAH ISLAND UTILITIES, LLC

LOCATION: CHARLESTON COUNTY, SOUTH CAROLINA

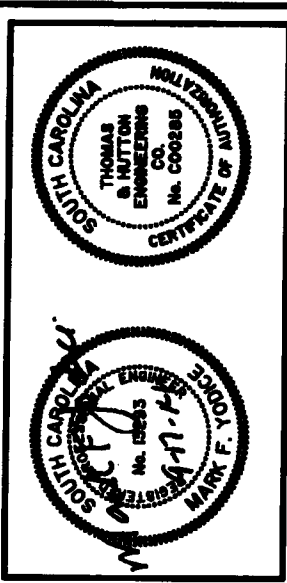
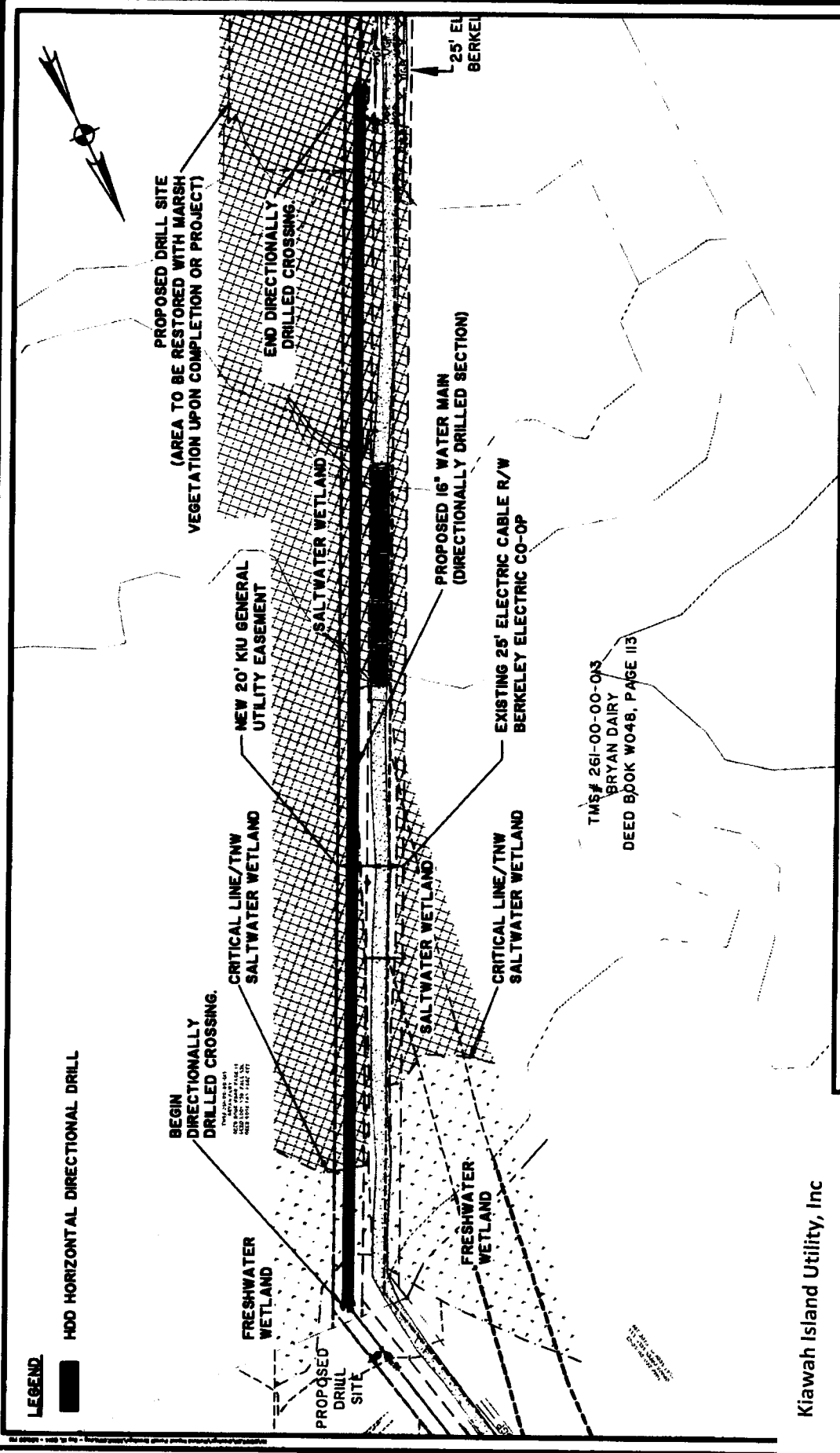
DATE: 8/18/2014

JOB NUMBER: J - 23197.0001

SHEET: 10 OF 15

SCALE: 1" = 100'





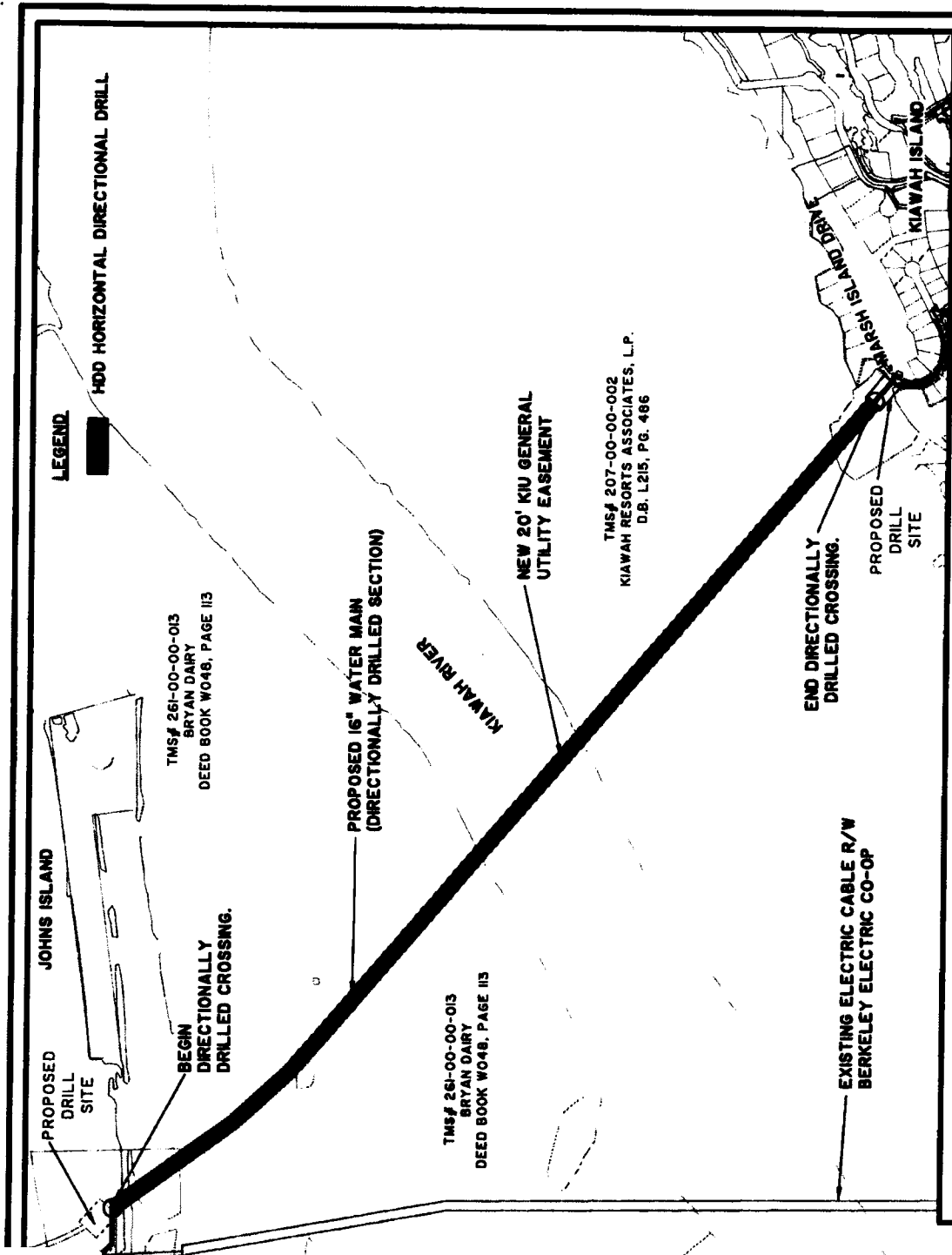
HDD IMPACT 1
 PROPOSED ACTIVITY:
REDUNDANT WATER SUPPLY MAIN
 CLIENT:
KIAWAH ISLAND UTILITIES, LLC
 LOCATION: CHARLESTON COUNTY, SOUTH CAROLINA
 DATE: 8/18/2014
 JOB NUMBER: J - 23197.0001

SHEET: 11 OF 15
 SCALE: 1" = 100'

Kiawah Island Utility, Inc

OCRM-15-210-E

OCRM-15-210-E



NOTES:
 1. A GEOTEXTILE LAYER WILL BE PLACED ON THE EXISTING GROUND, THEN COVERED WITH FILL MATERIAL IN ORDER TO CREATE AN ELEVATED PAD FOR THE HORIZONTAL DIRECTIONAL DRILL (HDD) CONSTRUCTION EQUIPMENT. UPON COMPLETION OF THE CONSTRUCTION ACTIVITIES, THE FILL MATERIAL AND THE GEOTEXTILE LAYER WILL BE REMOVED, AND THE AREA RESTORED TO PRE-CONSTRUCTION CONDITIONS.

HDD IMPACT 2

PROPOSED ACTIVITY:
REDUNDANT WATER SUPPLY MAIN

CLIENT:
KIAWAH ISLAND UTILITIES, LLC

LOCATION: CHARLESTON COUNTY, SOUTH CAROLINA
 DATE: 8/18/2014
 JOB NUMBER: J - 23197.0001

SHEET: 12 OF 15
 SCALE: 1" = 100'

