

# South Fork Wind Farm

**Offshore Conceptual Drawings**

**May 13, 2019**

## **Offshore Drawings**

The following figures are included in this Appendix.

Monopile Foundations (Typicals and Installation Sequence)

Offshore Substation

Typical Illustration

Inter-Array Cable

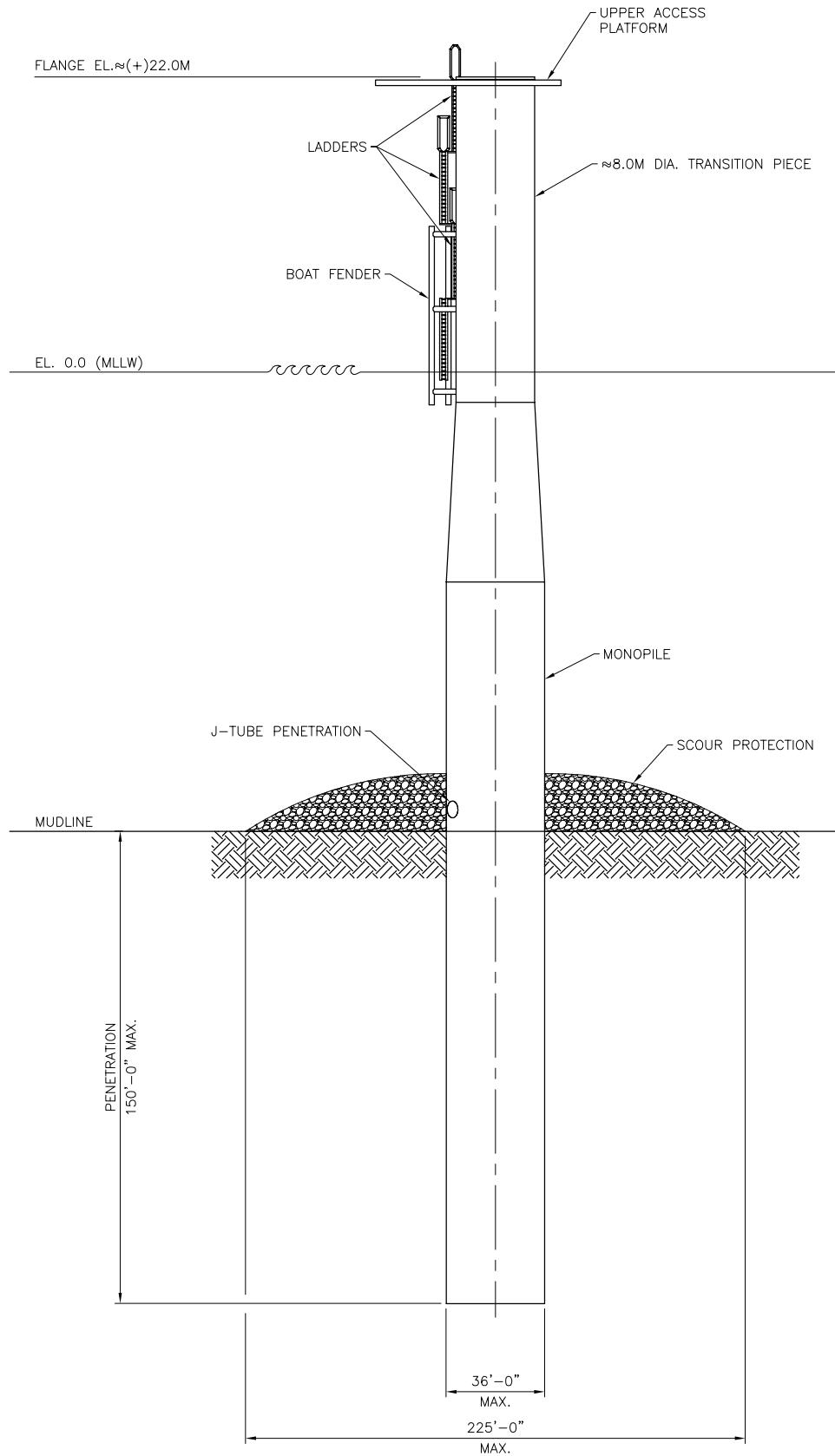
Cross-section

SFEC Cable

Cross-section

Typical Burial Depth

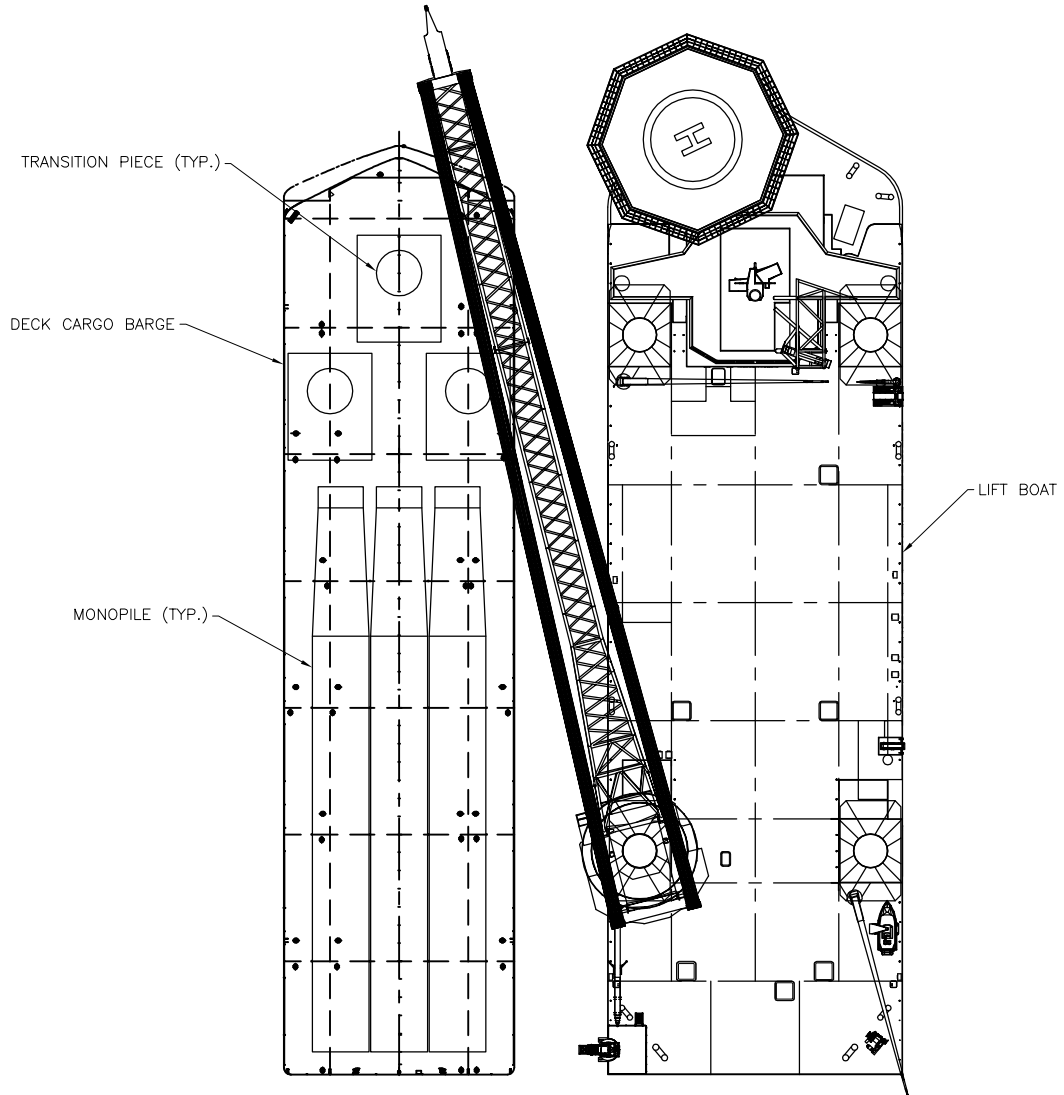
Shallow Depth / Cable Crossing



**SOUTH FORK WIND FARM  
MONOPILE FOUNDATION CONCEPT  
MONOPILE ELEVATION**

- NOTES:  
1. CONCEPTUAL DESIGN, FOR INFORMATION ONLY.  
2. TYPICAL INSTALLATION METHOD USING LIFT BOAT.  
ACTUAL DESCRIPTION INCLUDING ALTERNATIVES  
INCLUDED IN THE PERMIT APPLICATION.

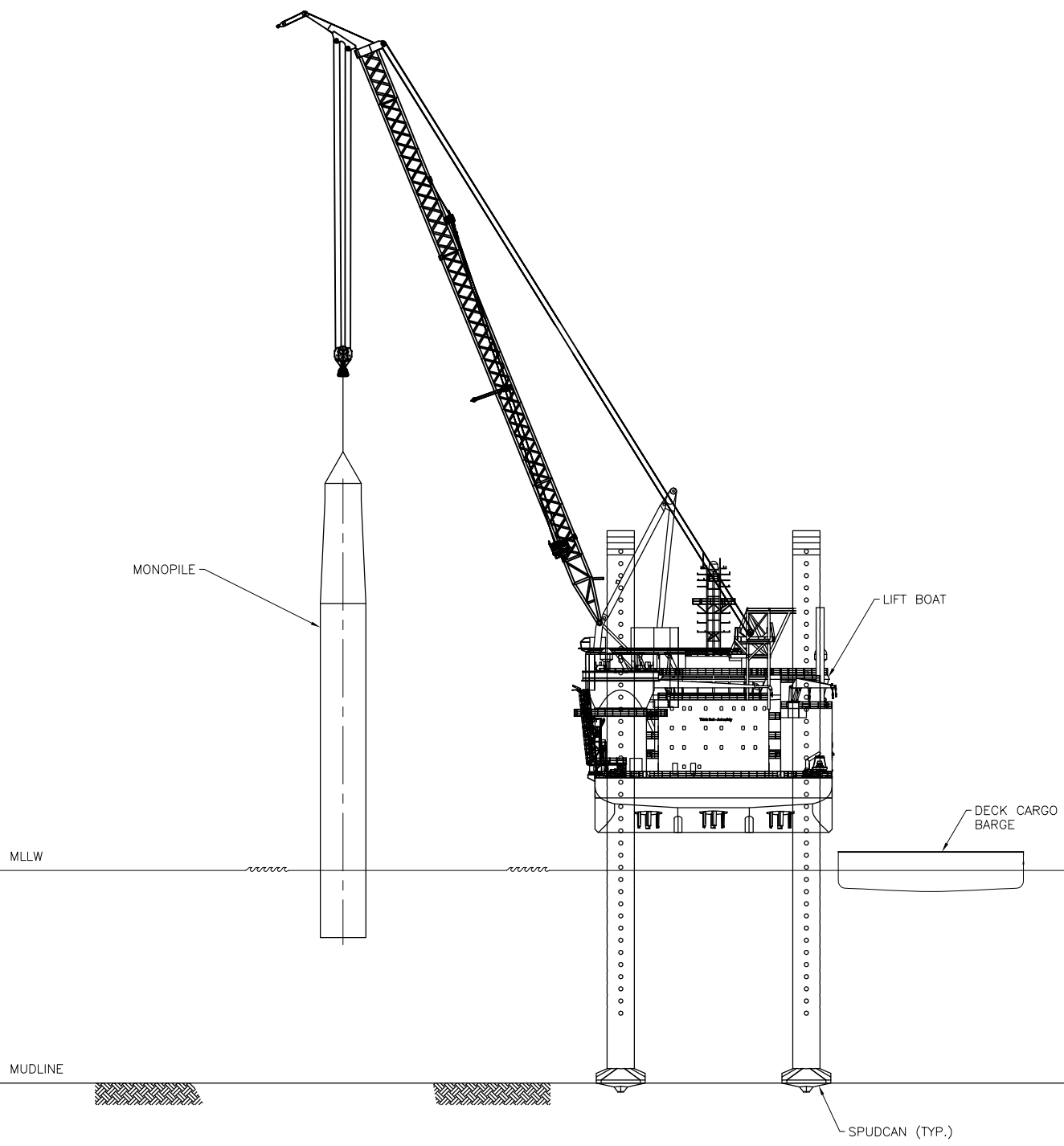




**SOUTH FORK WIND FARM  
MONOPILE FOUNDATION CONCEPT  
INSTALLATION PLAN**

- NOTES:  
1. CONCEPTUAL DESIGN, FOR INFORMATION ONLY.  
2. TYPICAL INSTALLATION METHOD USING LIFT BOAT.  
ACTUAL DESCRIPTION INCLUDING ALTERNATIVES  
INCLUDED IN THE PERMIT APPLICATION.

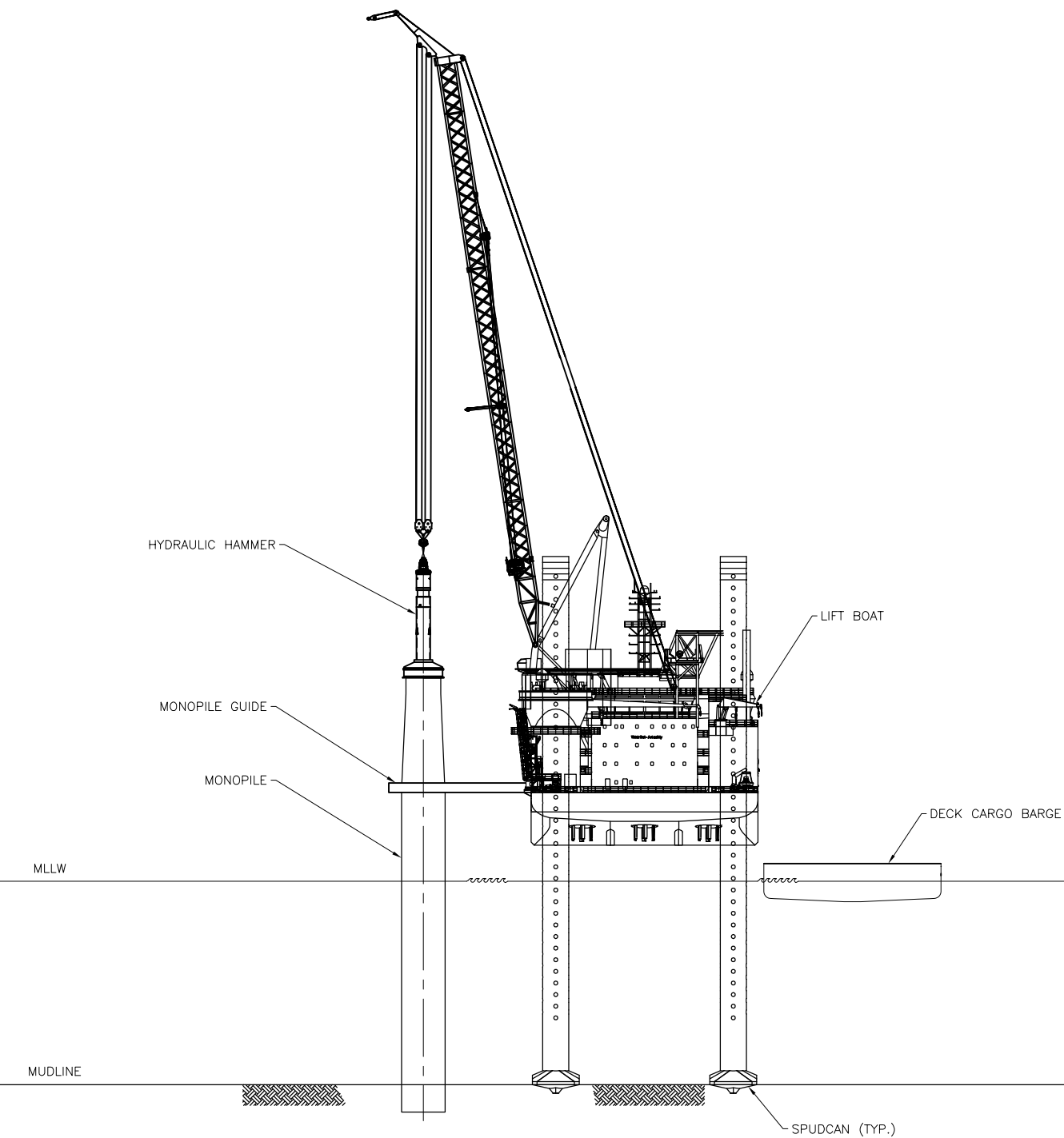




## SOUTH FORK WIND FARM MONOPILE FOUNDATION CONCEPT MONOPILE INSTALLATION ELEVATION

- NOTES:  
1. CONCEPTUAL DESIGN, FOR INFORMATION ONLY.  
2. TYPICAL INSTALLATION METHOD USING LIFT BOAT.  
ACTUAL DESCRIPTION INCLUDING ALTERNATIVES  
INCLUDED IN THE PERMIT APPLICATION.

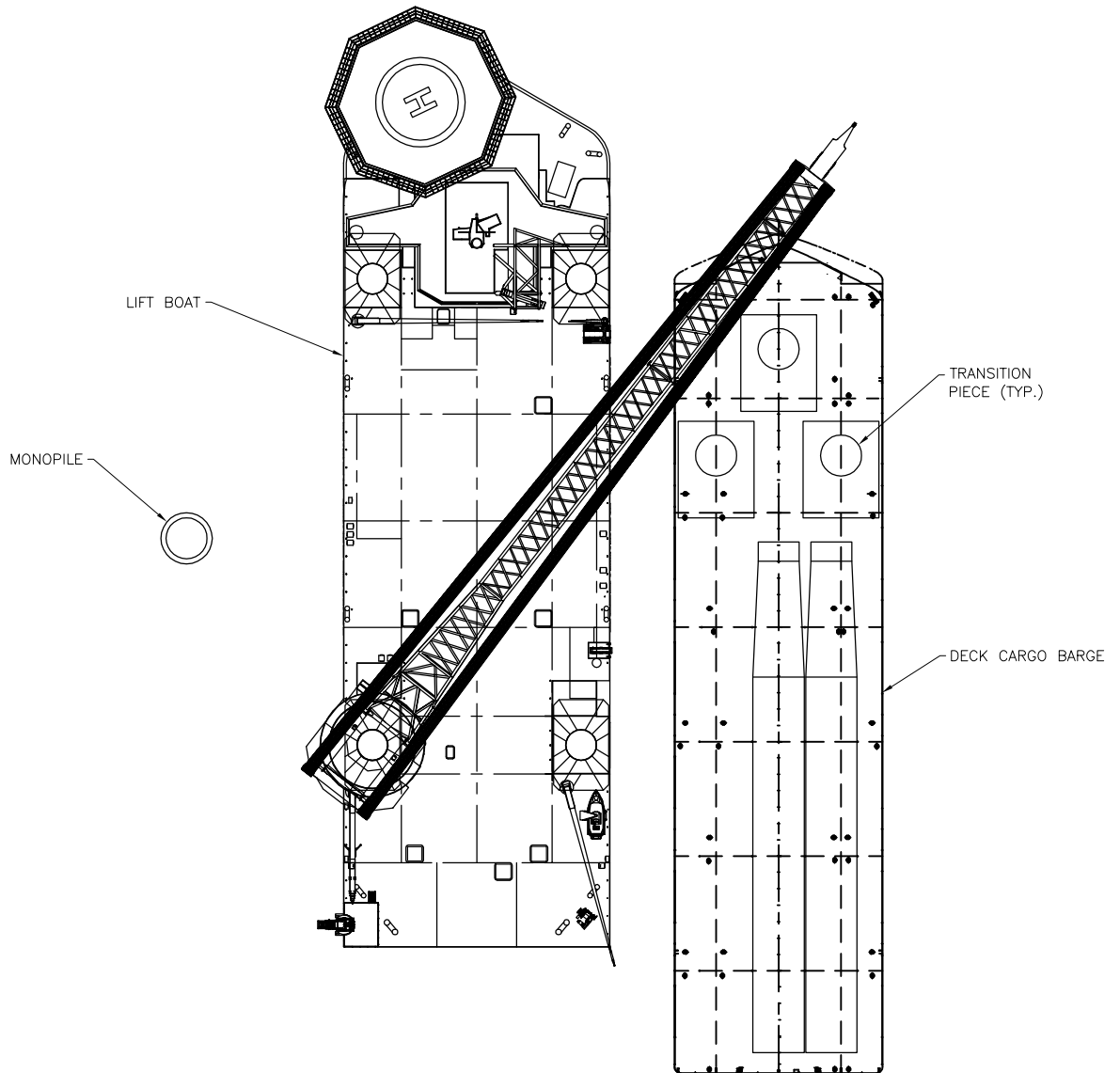




**SOUTH FORK WIND FARM  
MONOPILE FOUNDATION CONCEPT  
MONOPILE DRIVING ELEVATION**

NOTES:

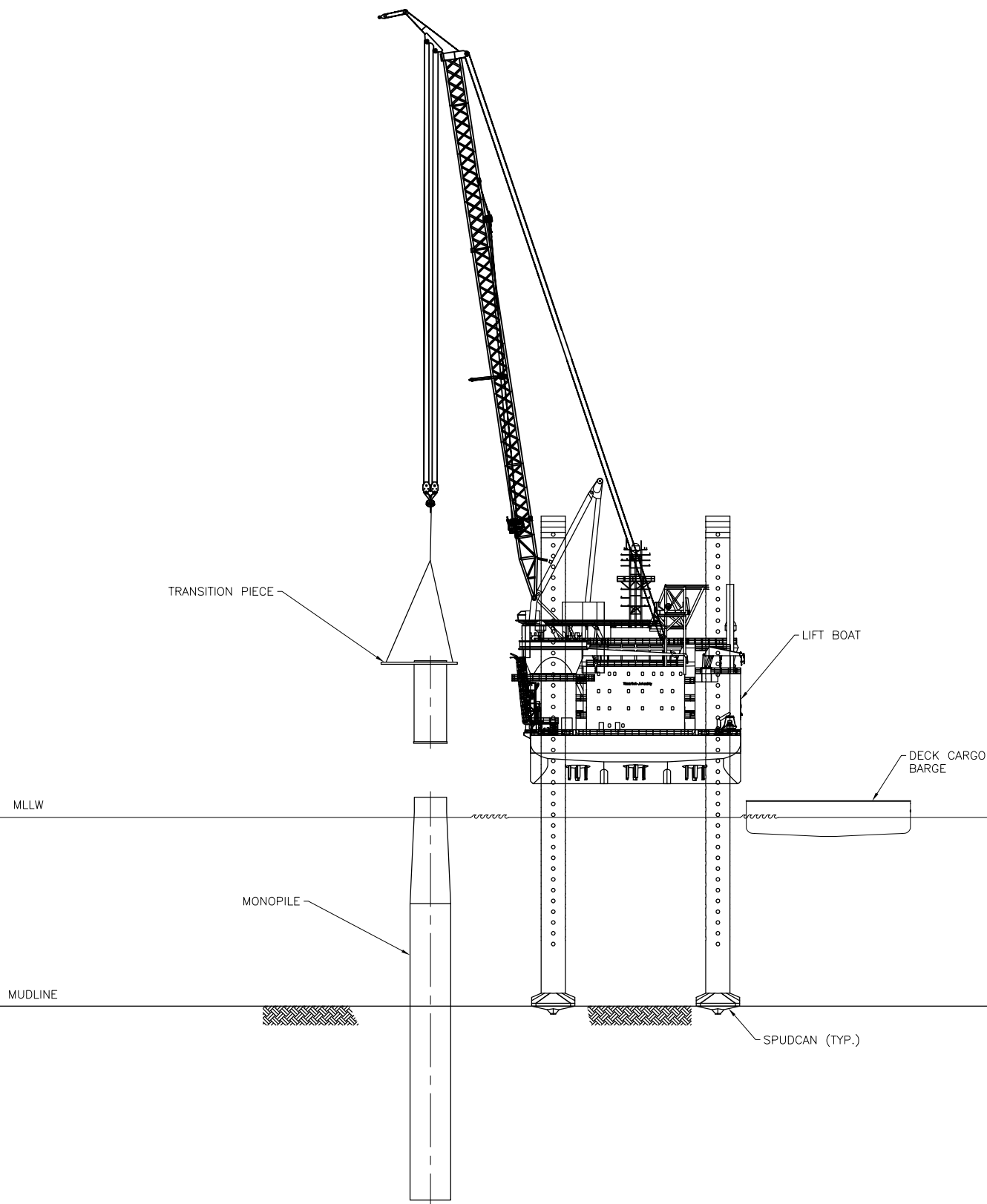
1. CONCEPTUAL DESIGN, FOR INFORMATION ONLY.
2. TYPICAL INSTALLATION METHOD USING LIFT BOAT. ACTUAL DESCRIPTION INCLUDING ALTERNATIVES INCLUDED IN THE PERMIT APPLICATION.



SOUTH FORK WIND FARM  
MONOPILE FOUNDATION CONCEPT  
RETRIEVING TRANSITION PIECE  
PLAN

NOTES:

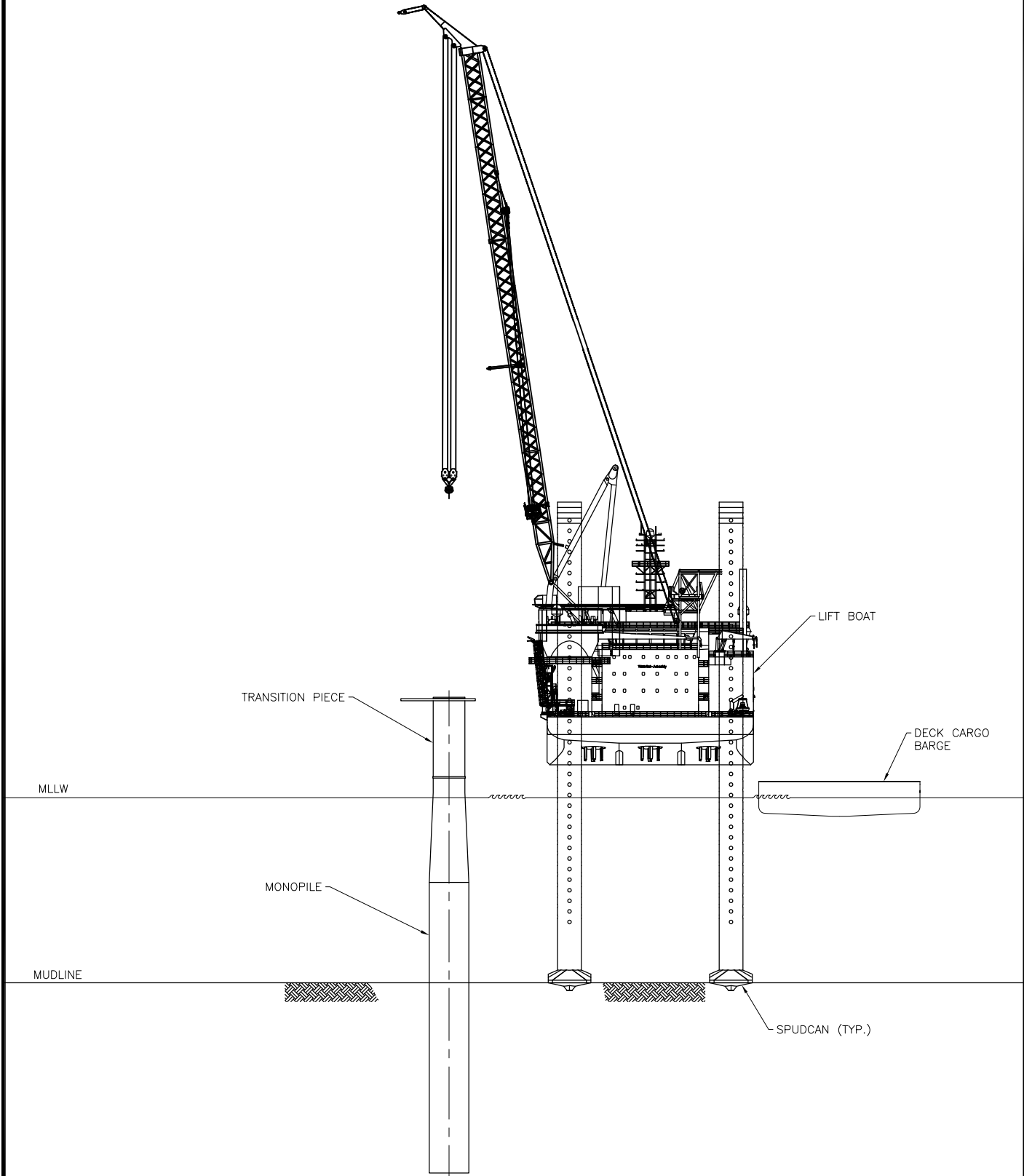
1. CONCEPTUAL DESIGN, FOR INFORMATION ONLY.
2. TYPICAL INSTALLATION METHOD USING LIFT BOAT. ACTUAL DESCRIPTION INCLUDING ALTERNATIVES INCLUDED IN THE PERMIT APPLICATION.



**SOUTH FORK WIND FARM  
MONOPILE FOUNDATION CONCEPT  
INSTALLING TRANSITION PIECE  
ELEVATION**

- NOTES:  
1. CONCEPTUAL DESIGN, FOR INFORMATION ONLY.  
2. TYPICAL INSTALLATION METHOD USING LIFT BOAT.  
ACTUAL DESCRIPTION INCLUDING ALTERNATIVES  
INCLUDED IN THE PERMIT APPLICATION.

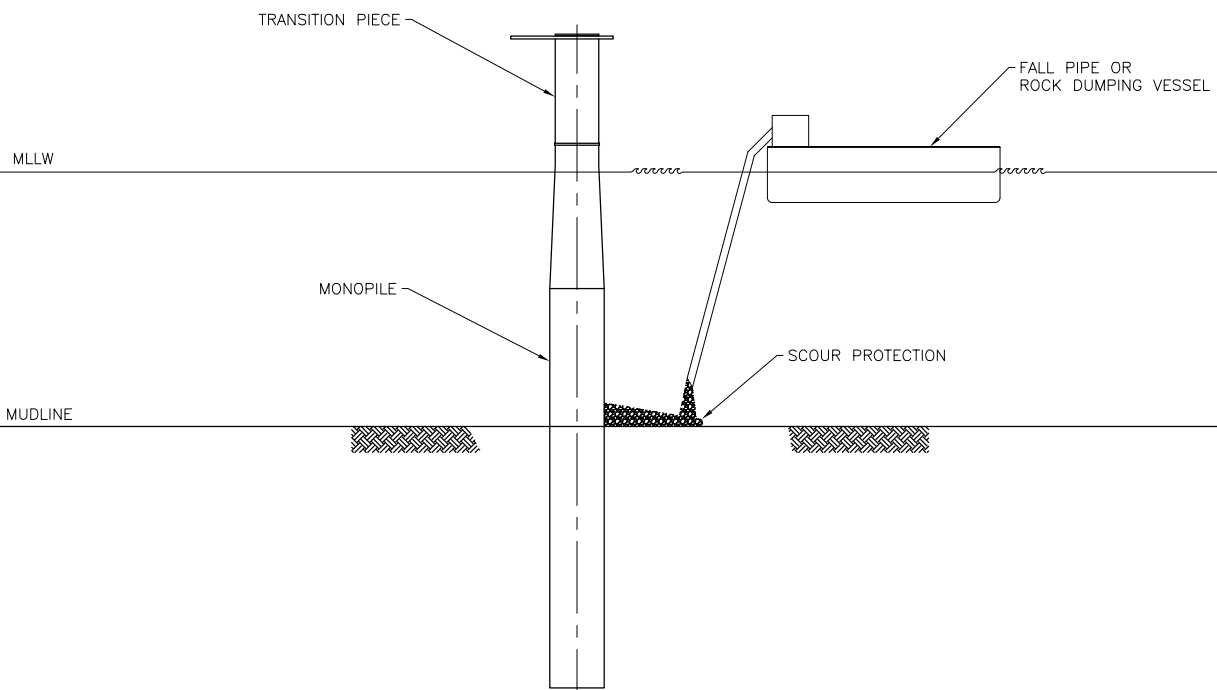




**SOUTH FORK WIND FARM  
MONOPILE FOUNDATION CONCEPT  
BOLT INSTALLATION ELEVATION**

- NOTES:  
1. CONCEPTUAL DESIGN, FOR INFORMATION ONLY.  
2. TYPICAL INSTALLATION METHOD USING LIFT BOAT.  
ACTUAL DESCRIPTION INCLUDING ALTERNATIVES  
INCLUDED IN THE PERMIT APPLICATION.

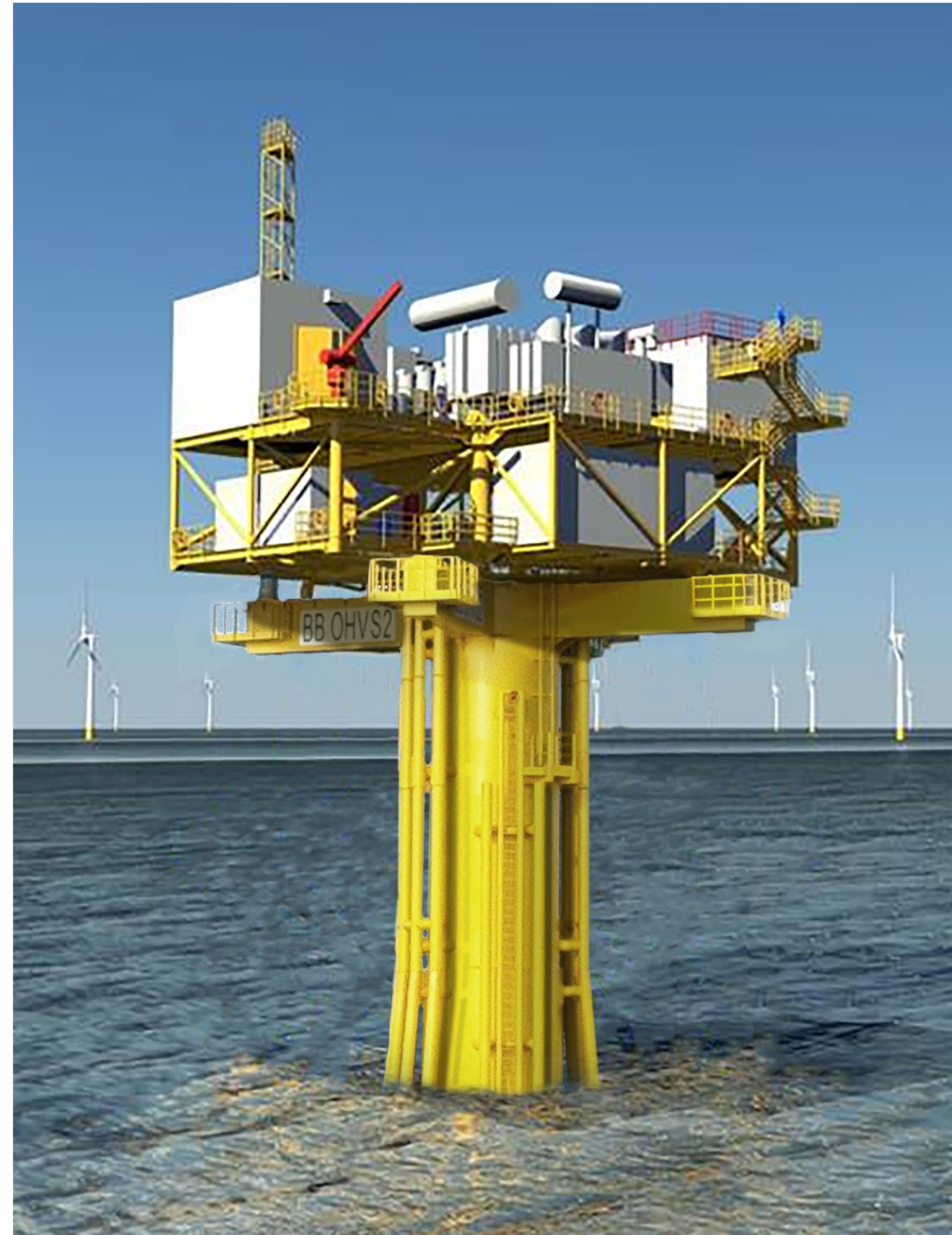




**SOUTH FORK WIND FARM  
MONOPILE FOUNDATION CONCEPT  
SCOUR PROTECTION INSTALLATION  
ELEVATION**

- NOTES:  
1. CONCEPTUAL DESIGN, FOR INFORMATION ONLY.  
2. TYPICAL INSTALLATION METHOD USING LIFT BOAT.  
ACTUAL DESCRIPTION INCLUDING ALTERNATIVES  
INCLUDED IN THE PERMIT APPLICATION.





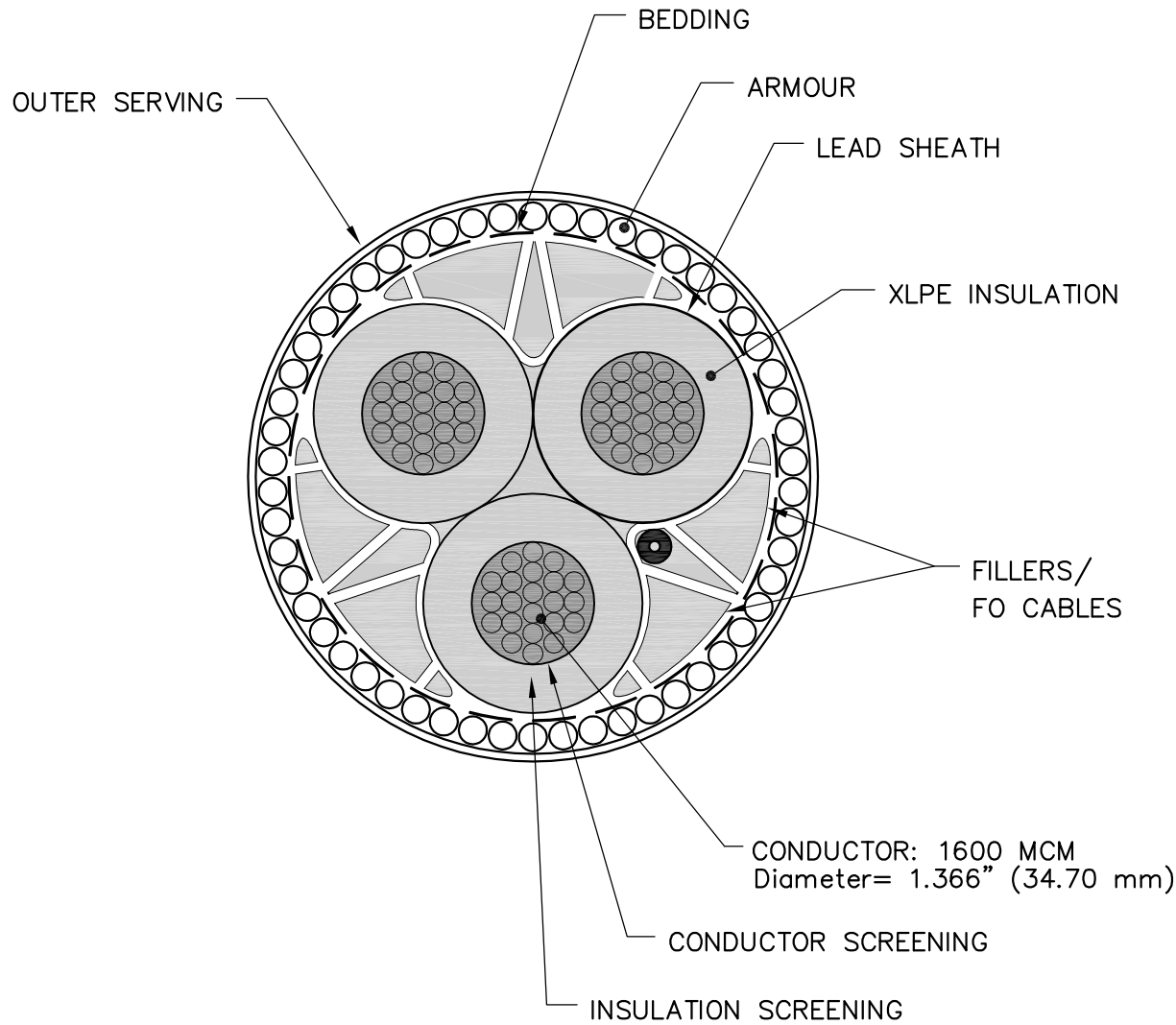
1	10 April 2018 rendering by IV-AGA

**SOUTH FORK WIND FARM OSS  
OFFSHORE SUB STATION**

LAST SAVE: 2018/05/23 - 2:27pm  
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**Notes:**

1. The inner layers dimensions will be provided by the manufacturer.
2. Outer serving diameter range is 6" to 12" (152 to 304mm) approximately.



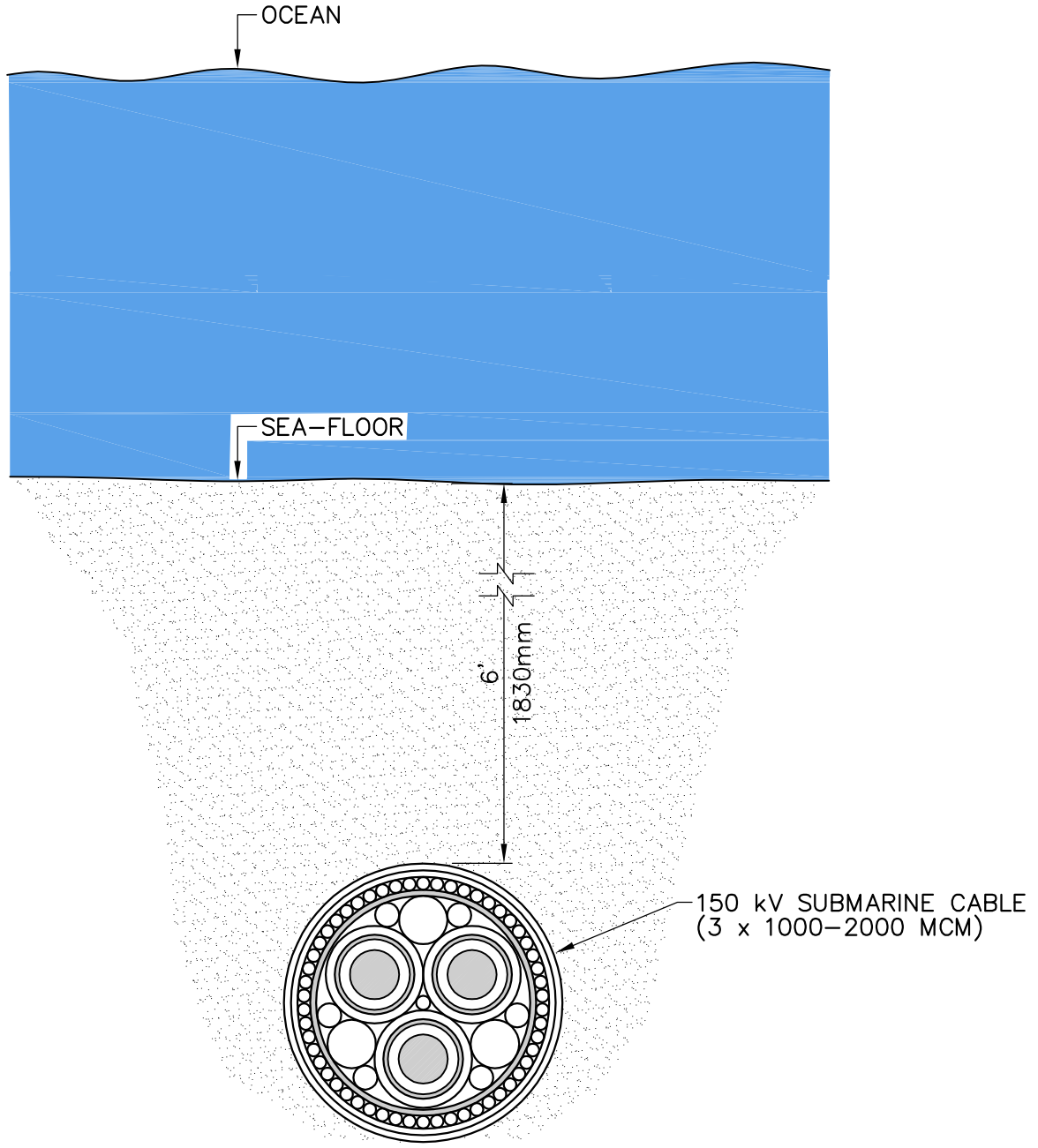
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C	ISSUED FOR C.O.P. SUBMISSION	18/05/08	A.P.	C.L.
B	ISSUED FOR CLIENT REVIEW	17/11/24	A.P.	R.A.
A	ISSUED FOR CLIENT REVIEW	17/10/18	A.P.	R.A.
No	REVISION DESCRIPTION	DATE(Y/M/D)	*	**
REVISION REGISTER		* DESIGNED **APPROVED		



DESIGNED A.P.	PROJECT <b>SOUTH FORK WIND FARM (SFWF)</b>
DRAWN T.A.	
CHECKED R.A.	
APPROVED R.A.	
DATE 2017-10-18	
SCALE NTS	TITLE <b>CABLE CROSS-SECTION 34.5 kV SUBMARINE CABLE (OFFSHORE) 1600 MCM</b>

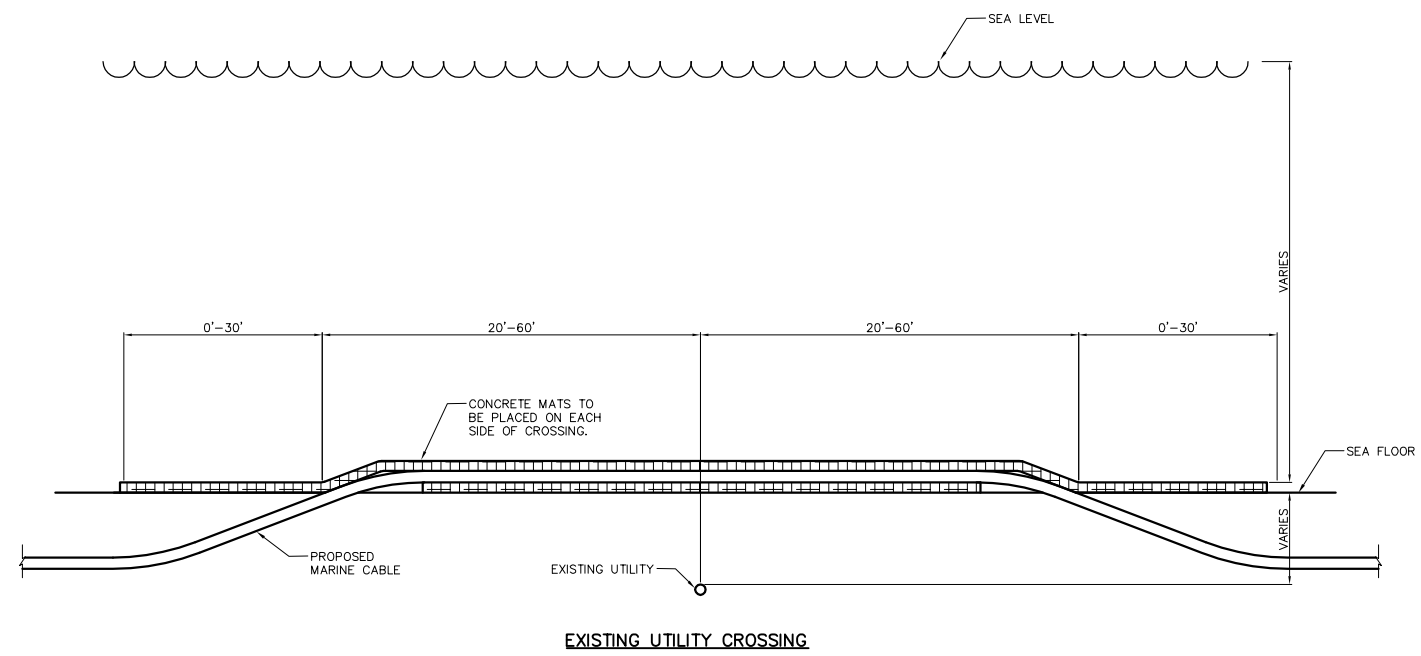
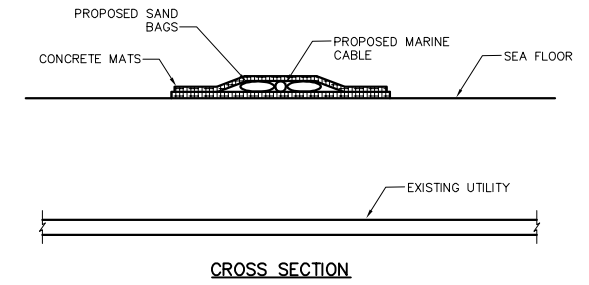
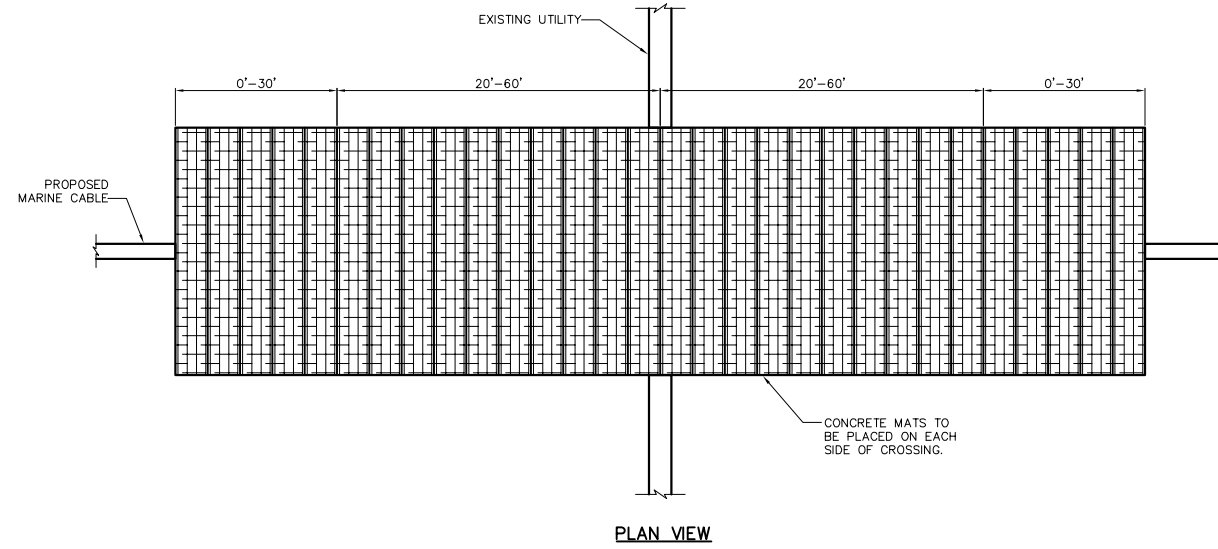
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SUBMARINE CABLE BURIED 6' UNDER SEA-FLOOR

				DESIGNED A.P.	PROJECT SOUTH FORK WIND FARM (SFWF)						
B	ISSUED FOR C.O.P. SUBMISSION	18/05/08	A.P.	C.L.	DRAWN T.A.	TITLE 138kV (NOMINAL), 150kV CLASS CROSS-SECTION (OFFSHORE)					
A	ISSUED FOR CLIENT REVIEW	17/10/18	A.P.	R.A.	CHECKED R.A.						
No	REVISION DESCRIPTION	DATE(Y/M/D)	*	**	APPROVED R.A.						
REVISION REGISTER			* DESIGNED **APPROVED		DATE 2017-10-18						
		CLIENT					PROJECT No	SUBDIVISION	SUBJECT	SERIAL	REV.
					SCALE NTS		648902	0000	47DD	0005	B

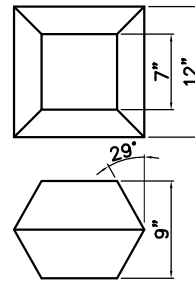


No	REVISION DESCRIPTION	DATE (Y/M/D)	A.P.	C.L.
A	ISSUED FOR CLIENT REVIEW	18/05/08	A.P.	C.L.

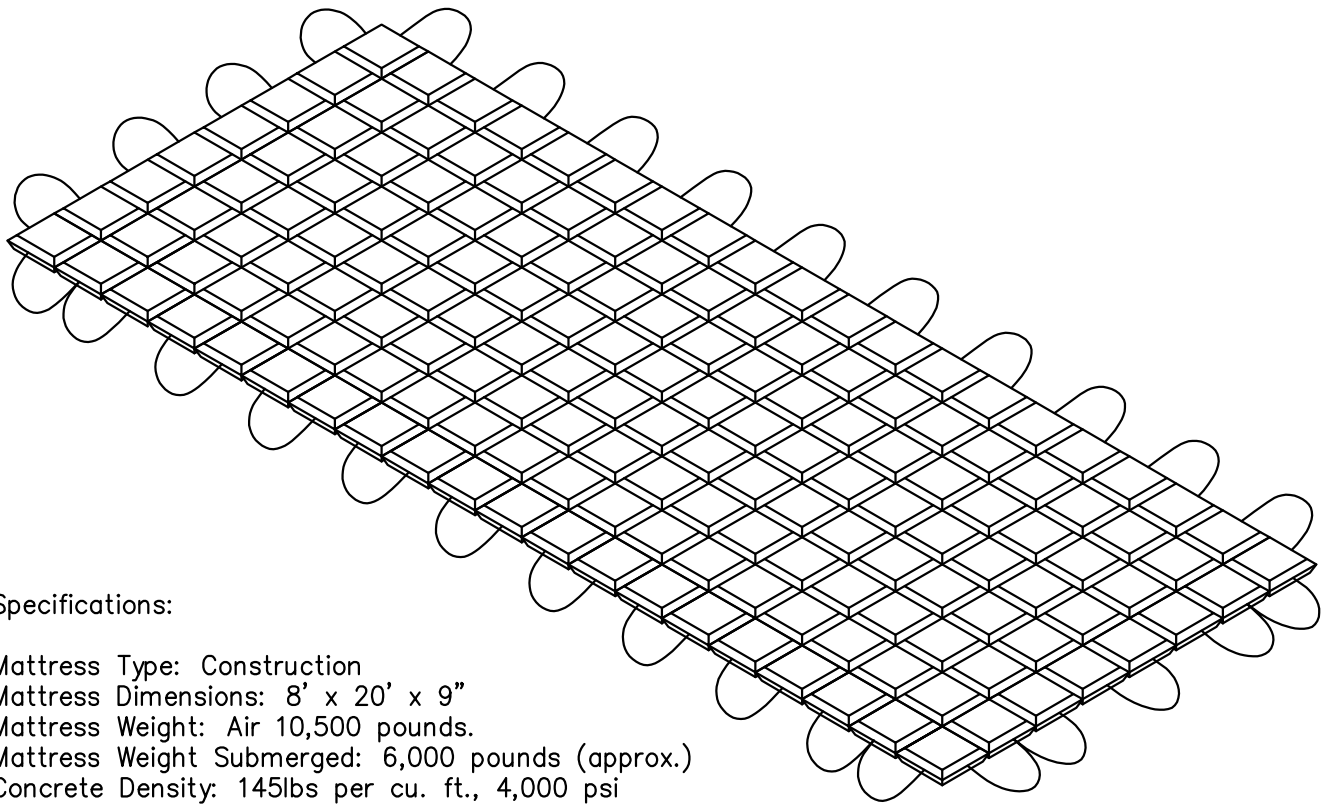
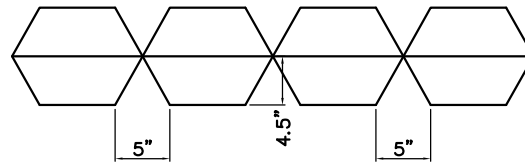
	PROFESSIONAL SEAL	PREPARATION
		DESIGNED
		A.P.
		DRAWN
		I.M.
	CHECKED	
	C.L.	
	DATE	
	2018-05-07	
SCALE	SHEET	OF
NTS		

CLIENT	DEEPWATER WIND SOUTH FORK, LLC
PROJECT	SOUTH FORK WIND FARM (SFWF)
TITLE	UTILITY CROSSING DETAIL TYPICAL
DOCUMENT No.	648902-0000-4700-0017
REV	A

LAST SAVE: 2018/05/08 - 12:47pm  
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INDIVIDUAL ELEMENT



Specifications:

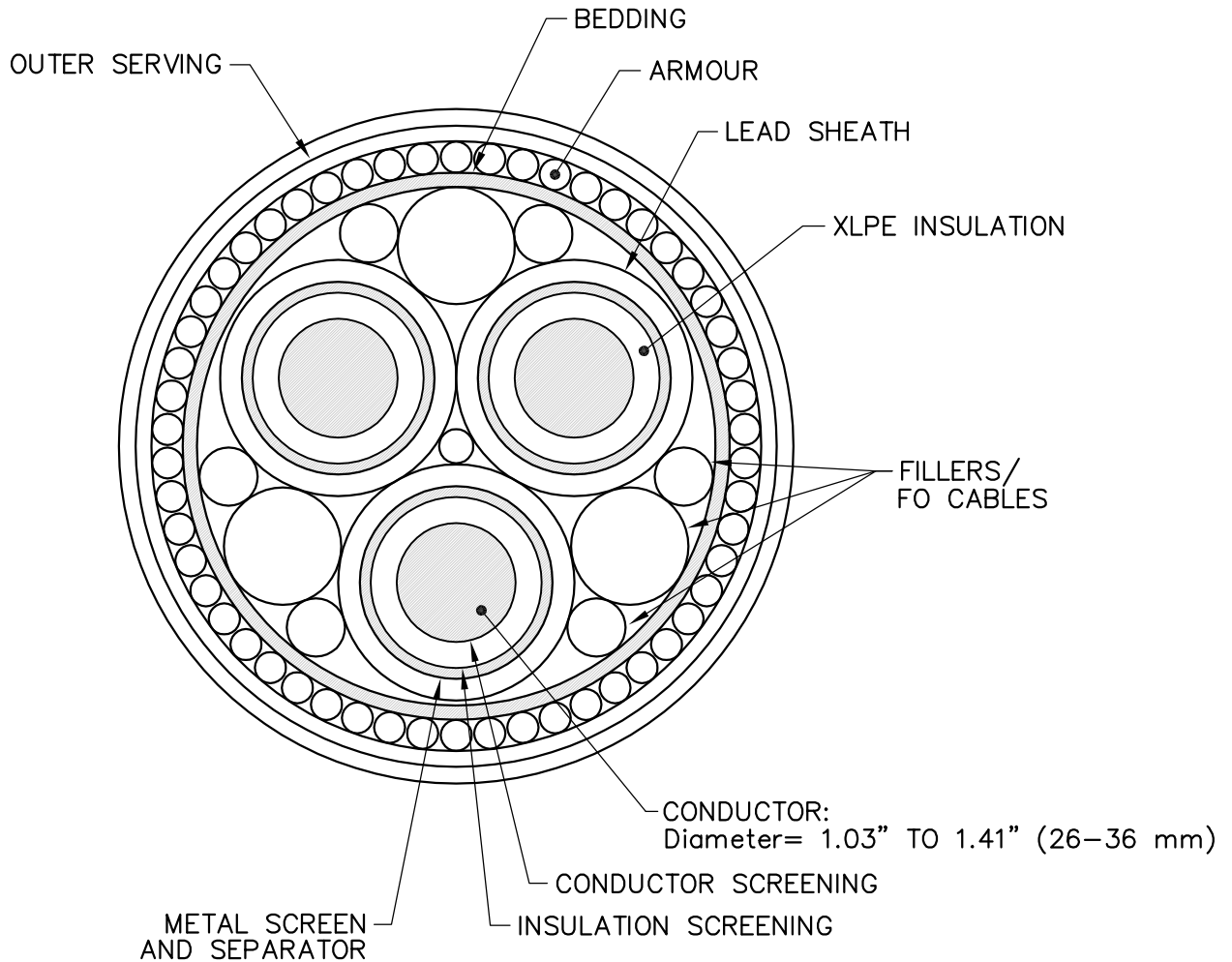
Mattress Type: Construction  
 Mattress Dimensions: 8' x 20' x 9"  
 Mattress Weight: Air 10,500 pounds.  
 Mattress Weight Submerged: 6,000 pounds (approx.)  
 Concrete Density: 145lbs per cu. ft., 4,000 psi  
 160 Elements: 5/8" Ultra Violet stabilized copolymer  
 extruded fiber rope, minimum tensile  
 strength 9,500 pounds.

				DESIGNED A.P.	PROJECT SOUTH FORK WIND FARM (SFWF)					
				DRAWN I.M.	TITLE 9" CONCRETE MATTRESS					
A ISSUED FOR CLIENT REVIEW				18/05/08	A.P.	C.L.				
No	REVISION DESCRIPTION	DATE(Y/M/D)	*	**	CHECKED C.L.					
REVISION REGISTER		* DESIGNED	**APPROVED		APPROVED C.L.					
CLIENT					DATE 2018-05-07					
					SCALE NTS	PROJECT No 648902	SUBDIVISION 0000	SUBJECT 47DD	SERIAL 0016	REV. A

LAST SAVE: 2018/05/23 - 2:26pm  
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**Notes:**

1. The inner layers dimensions will be provided by the manufacturer.
2. Outer serving diameter range is 6" to 12" (152 to 304mm) approximately.



C	RE-ISSUED FOR C.O.P. SUBMISSION	18/05/23	A.P.	C.L.	DESIGNED A.P.	PROJECT SOUTH FORK WIND FARM (SFWF)					
B	ISSUED FOR C.O.P. SUBMISSION	18/05/08	A.P.	C.L.	DRAWN T.A.	TITLE CABLE CROSS-SECTION					
A	ISSUED FOR CLIENT REVIEW	17/10/18	A.P.	R.A.	CHECKED R.A.	138 kV NOMINAL - 150kV CLASS SUBMARINE CABLE (OFFSHORE)					
No	REVISION DESCRIPTION	DATE(Y/M/D)	*	**	APPROVED R.A.	1000-2000 MCM					
REVISION REGISTER					* DESIGNED	**APPROVED	PROJECT No	SUBDIVISION	SUBJECT	SERIAL	REV.
CLIENT					DATE 2017-10-18	648902 0000 47DD 0004 C					
					SCALE 1:2						