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Table 1. WTGs and Offshore Converter Station Locations. This table provides surface locations and water depths for the WTGs and 1 OCS–DC.

Position ID ¹	USCG ID	Water Depth (m)	WGS84		NAD83 (2011) UTM Zone 19N	
			Latitude (DD)	Longitude (DD)	Easting (meters)	Northing (meters)
63	AR-16	-41.26	41.046468	-70.946655	336394	4545740
79	AS-19	-45.01	41.030891	-70.880107	341950	4543888
80	AS-18	-44.86	-70.902574	41.030010	340059.4985	4543830.912
81	AS-17	-42.39	41.030164	-70.924145	338246	4543888
82	AS-16	-41.81	-70.946340	41.030227	336380.656	4543936.187
83	AS-15	-39.46	41.029421	-70.968182	334542	4543888
84	AS-14	-40.67	41.029042	-70.990199	332690	4543888
85	AS-13	-41.00	41.028660	-71.012216	330838	4543888
86	AS-12	-43.19	41.028273	-71.034233	328986	4543888
87	AS-11	-44.08	-71.055378	41.027900	327207.684	4543888
88	AS-10	-42.45	41.027487	-71.078265	325282	4543888
89	AS-09	-42.97	41.027088	-71.100281	323425	4543778
90	AS-08	-41.78	41.026685	-71.122296	321578	4543888
91	AS-07	-42.71	41.026277	-71.144310	319726	4543888
92	AS-06	-43.44	41.025865	-71.166324	317874	4543788
93	AS-05	-46.39	41.025449	-71.188338	316022	4543788
94	AS-04	-47.81	41.025029	-71.210351	314170	4543888
95	AS-03	-49.37	41.024604	-71.232364	312318	4543888
96	AS-02	-48.97	41.024176	-71.254376	310466	4543888
97	AS-01	-45.52	41.023743	-71.276387	308614	4543888
109	AT-19	-46.90	41.014217	-70.879633	341950	4542036
110	AT-18	-46.33	41.013856	-70.901646	340098	4542036
111	AT-17	-45.68	41.013491	-70.923660	338246	4542036
112	AT-16	-45.32	41.013121	-70.945673	336394	4542036
113	AT-15	-46.46	41.012747	-70.967685	334542	4542036
114	AT-14	-46.06	41.012369	-70.989697	332690	4542036
115	AT-13	-45.81	41.011987	-71.011709	330838	4542036
116	AT-12	-46.05	41.011601	-71.033720	328986	4542036
117	AT-11	-46.59	-71.055709	41.010180	327133.5469	4541921.376

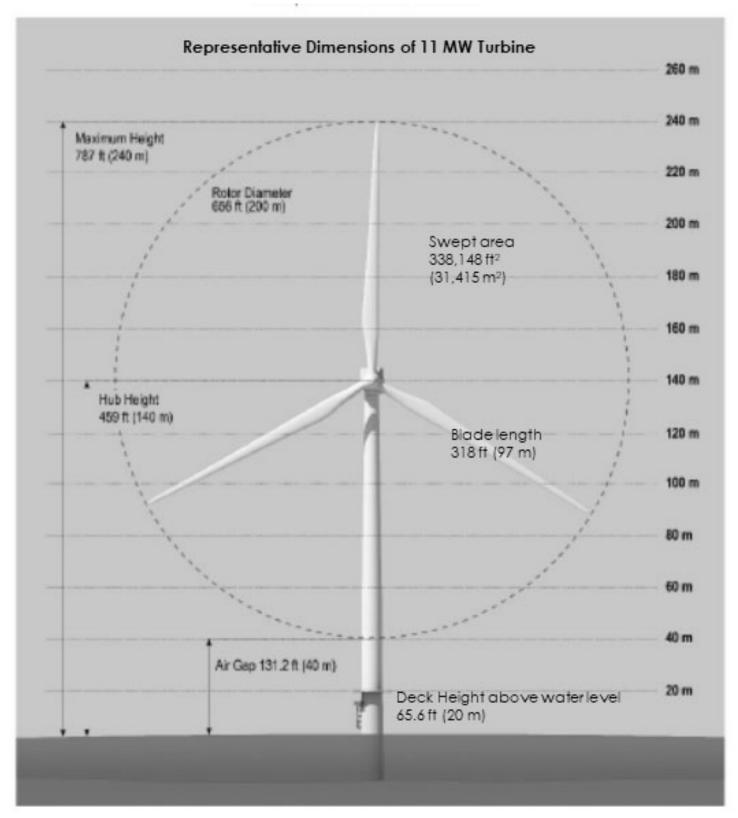
¹ These are reference identifiers for WTGs and OCS-DC and do not reflect a sequential numbering system.

Position ID ¹	USCG ID	Water Depth (m)	WGS84		NAD83 (2011) UTM Zone 19N	
			Latitude (DD)	Longitude (DD)	Easting (meters)	Northing (meters)
118	AT-10	-46.50	41.010815	-71.077741	325282	4542036
119	AT-09	-47.67	-71.100091	41.010789	323402.7904	4542077.948
120	AT-08	-46.25	41.010004	-71.121760	321578	4542036
121	AT-07	-45.92	41.009605	-71.143769	319726	4542036
122	AT-06	-48.59	41.009194	-71.165778	317874	4542036
123	AT-05	-49.89	41.008778	-71.187786	316022	4542036
124	AT-04	-50.03	41.008358	-71.209793	314170	4542036
126	AT-02	-46.68	41.007505	-71.253807	310466	4542036
127	AT-01	-46.50	41.007073	-71.275813	308614	4542036
138	AU-19	-48.39	-70.879177	40.997995	341950	4540234
139	AU-18	-49.04	40.997182	-70.901167	340098	4540184
140	AU-17	-47.48	40.996817	-70.923175	338246	4540184
141	AU-16	-47.10	40.996447	-70.945182	336394	4540184
142	AU-15	-47.16	-70.966749	40.995602	334578.2467	4540130.623
143	AU-14	-47.70	40.995696	-70.989195	332690	4540184
144	AU-13	-48.33	40.995314	-71.011202	330838	4540184
145	AU-12	-48.27	40.994928	-71.033207	328986	4540184
146	AU-11	-49.03	-71.054419	40.994763	327201.7372	4540207.255
147	AU-10	-47.34	40.994143	-71.077217	325282	4540184
148	AU-09	-48.98	40.993744	-71.099221	323430	4540184
150	AU-07	-50.44	40.992934	-71.143229	319726	4540184
151	AU-06	-52.00	40.992523	-71.165232	317874	4540184
152	AU-05	-52.60	40.992107	-71.187234	316022	4540184
153	AU-04	-50.71	40.991687	-71.209236	314170	4540184
155	AU-02	-46.41	40.990835	-71.253239	310466	4540184
156	AU-01	-47.81	40.990403	-71.275240	308614	4540184
166	AV-18	-51.50	40.980508	-70.900688	340098	4538332
167	AV-17	-49.64	40.980143	-70.922690	338246	4538332
168	AV-16	-48.59	40.979774	-70.944692	336394	4538332
169	AV-15	-48.66	40.979400	-70.966693	334542	4538332
170	AV-14	-48.10	40.979023	-70.988694	332690	4538332
171	AV-13	-49.61	40.978641	-71.010695	330838	4538332
172	AV-12	-50.16	40.978255	-71.032695	328986	4538332
173	AV-11	-49.98	40.977865	-71.054695	327134	4538332

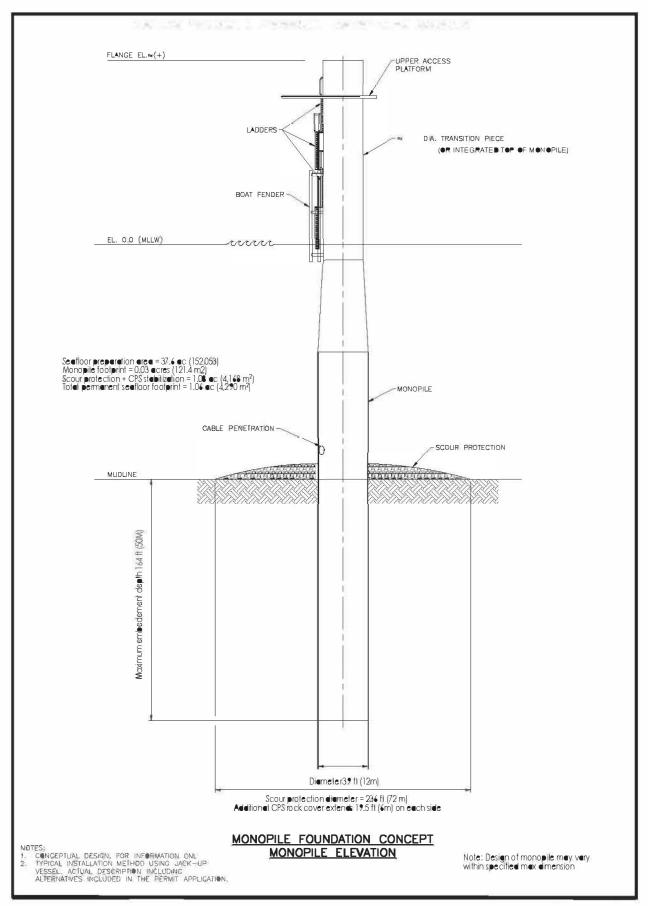
Position ID ¹	USCG ID	Water Depth (m)	WG\$84		NAD83 (2011) UTM Zone 19N		
			Latitude (DD)	Longitude (DD)	Easting (meters)	Northing (meters)	
174	AV-10	-49.11	40.977471	-71.076694	325282	4538332	
175	AV-09	-50.18	40.977072	-71.098693	323430	4538332	
176	AV-08	-48.41	40.976669	-71.120691	321578	4538332	
177	AV-07	-49.90	40.976262	-71.142689	319726	4538332	
178	AV-06	-52.47	40.975851	-71.164686	317874	4538332	
179	AV-05	-54.09	40.975436	-71.186683	316022	4538332	
180	AV-04	-54.50	40.975016	-71.208680	314170	4538332	
181	AV-03	-52.49	40.974593	-71.230676	312318	4538332	
182	AV-02	-52.09	40.974165	-71.252672	310466	4538332	
183	AV-01	-48.91	40.973733	-71.274667	308614	4538332	
194	AW-17	-52.71	40.963469	-70.922206	338246	4536480	
195	AW-16	-52.20	40.963100	-70.944202	336394	4536480	
196	AW-15	-49.95	40.962727	-70.966198	334542	4536480	
197	AW-14	-50.62	40.962349	-70.988194	332690	4536480	
198	AW-13	-50.13	-71.011325	40.961950	330742.7457	4536480	
199	AW-12	-50.85	-71.032165	40.960819	328986	4536395	
200	AW-11	-49.57	40.961192	-71.054177	327134	4536480	
201	AW-10	-50.42	40.960798	-71.076171	325282	4536480	
202	AW-09	-50.96	40.960400	-71.098164	323430	4536480	
203	AW-08	-51.37	-71.120114	40.959310	321580.1471	4536403.419	
204	AW-07	-50.85	40.959591	-71.142149	319726	4536480	
205	AW-06	-52.03	40.959180	-71.164141	317874	4536480	
206	AW-05	-51.14	40.958765	-71.186133	316022	4536480	
208	AW-03	-51.46	40.957922	-71.230114	312318	4536480	
209	AW-02	-53.22	40.957494	-71.252104	310466	4536480	
210	AW-01	-53.63	40.957062	-71.274094	308614	4536480	
220	AX-16	-53.14	40.946426	-70.943713	336394	4534628	
221	AX-15	-52.20	40.946053	-70.965703	334542	4534628	
222	AX-14	-52.46	40.945676	-70.987693	332690	4534628	
223	AX-13	-51.79	40.945295	-71.009683	330838	4534628	
224	AX-12	-50.34	40.944909	-71.031672	328986	4534628	
234	AY-16	-55.22	40.929752	-70.943224	336394	4532776	
235	AY-15	-54.49	40.929380	-70.965209	334542	4532776	
236	AY-14	-53.54	40.929003	-70.987193	332690	4532776	

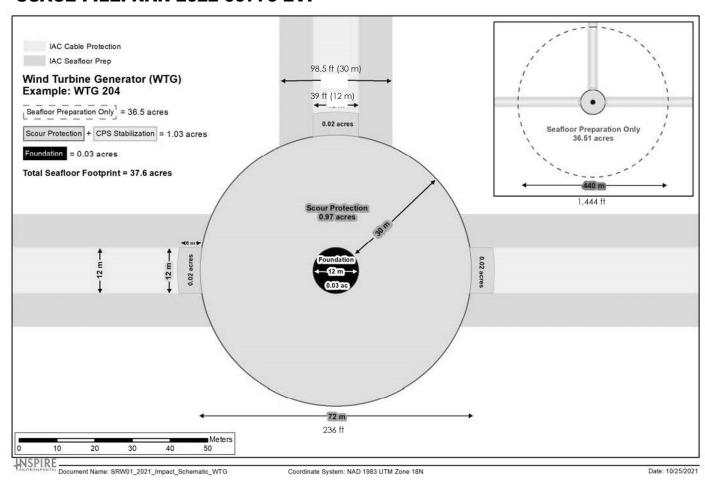
Position ID ¹	USCG ID	Water Depth	WGS84		NAD83 (2011) UTM Zone 19N	
יםו ווטוווטי		(m)	Latitude (DD)	Longitude (DD)	Easting (meters)	Northing (meters)
237	AY-13	-54.09	40.928622	-71.009177	330838	4532776
238	AY-12	-50.55	40.928236	-71.031161	328986	4532776
248	AZ-14	-55.16	40.912329	-70.986694	332690	4530924
249	AZ-13	-55.07	40.911948	-71.008672	330838	4530924
250	AZ-12	-55.21	40.911563	-71.030650	328986	4530924
1492	AU-08	-50.84	40.993341	-71.121225	321578	4540184

² The potential location for the OCS–DC position.

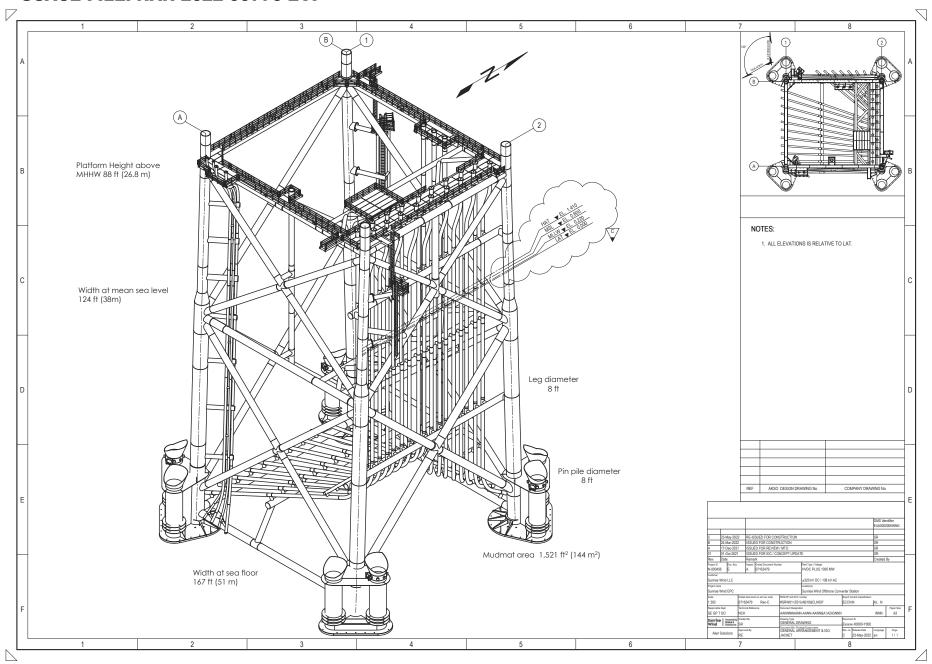


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Orsted Shallow Water Metocean Mooring (30-100m estimated depth range)



Includes:

- Wave Sensor
- Current Speed & Direction ADCP
- Visibility Sensor
- Meteorological Sensor Suite
- AIS Beacon
- Camera
- Real-Time Data Aquisition System
- Satellite Telemetry unit

3/4" Chain 10m Length

5/16" Jacketed Wire Rope 15 / 55 / 85m Length

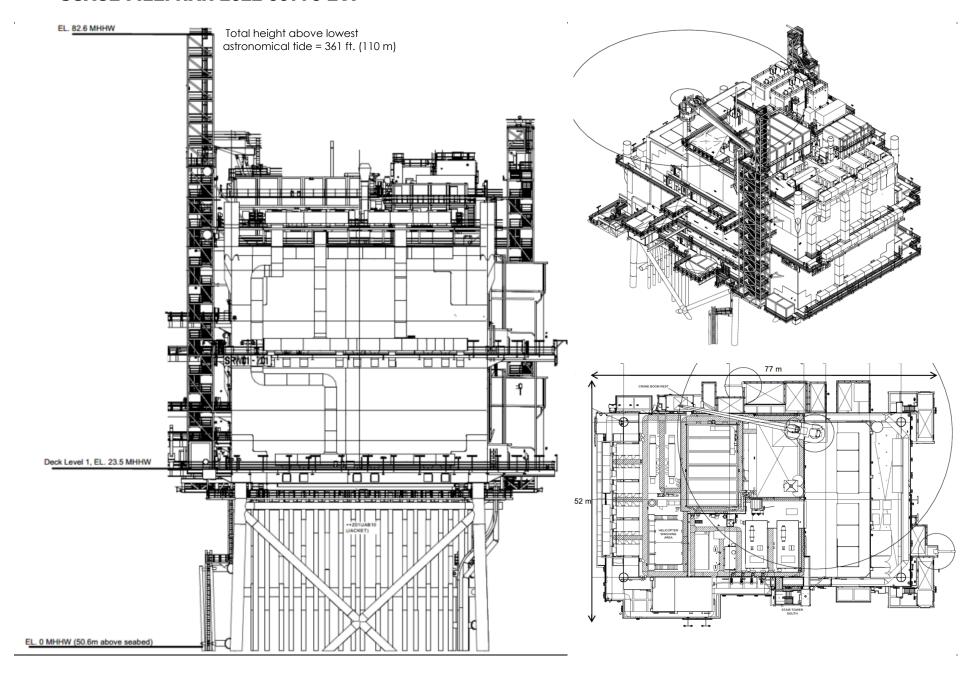
3/4" Chain Catenary 35 / 50 / 70m Length

Sea Floor 30 / 70 / 100m depth

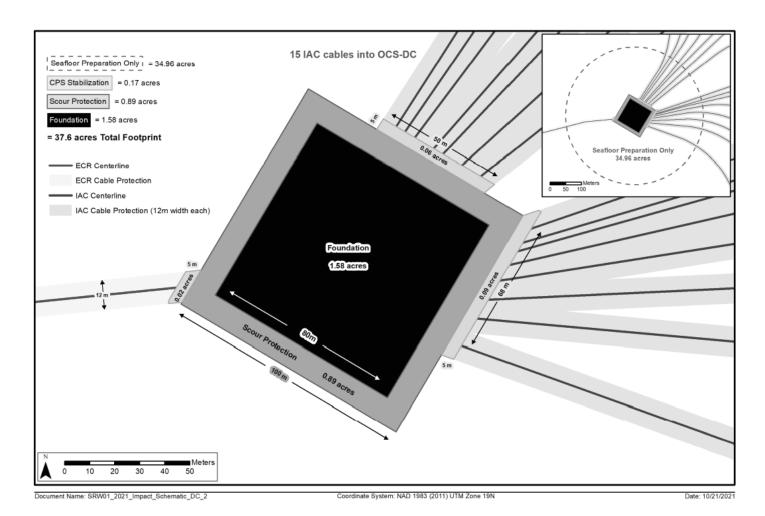
Sea Surface - 0m

Ballast

(2600 lb / 1180 kg Clump Weight)



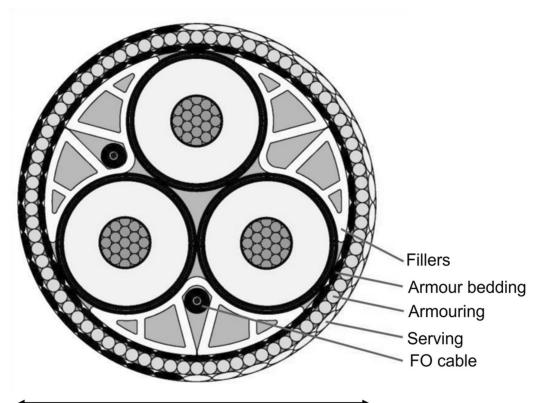
Offshore Converter Station (OCS-DC) topside platform will be assembled as a single unit prior to being transported to the Lease Area via a heavy transport vessel or barge. Topside platform will be lifted and lowered onto the pre-installed foundation and secured via grouted, bolted, or welded connection.



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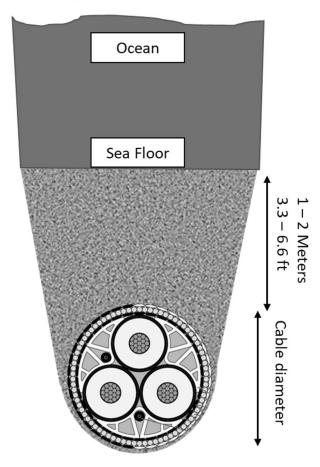
Inter-array Cable total permanent footprint = 14.5 acres (633,600 ft²)
Total temporary seabed disturbance area = 2,150 acres (870 ha)

Inter-array Cable Cross-Section

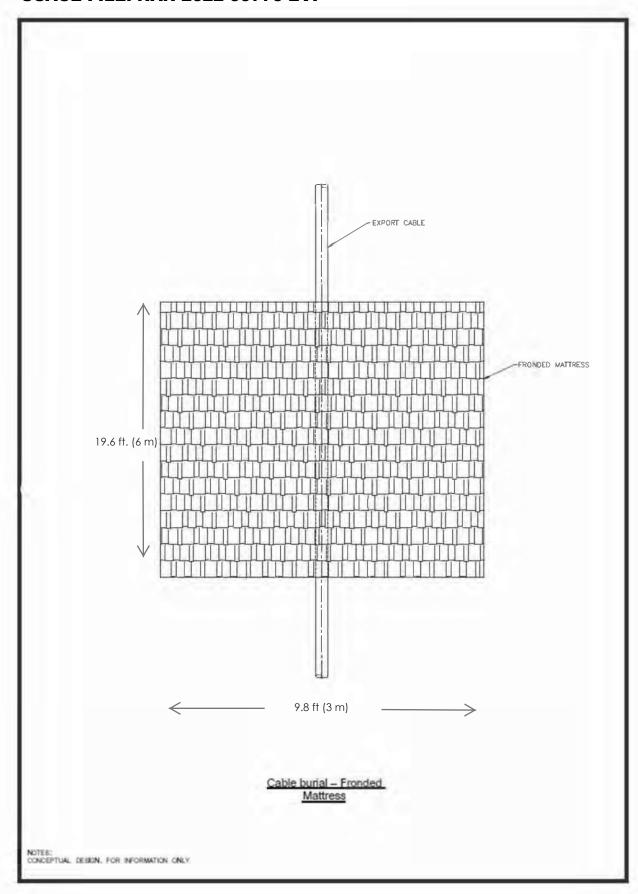


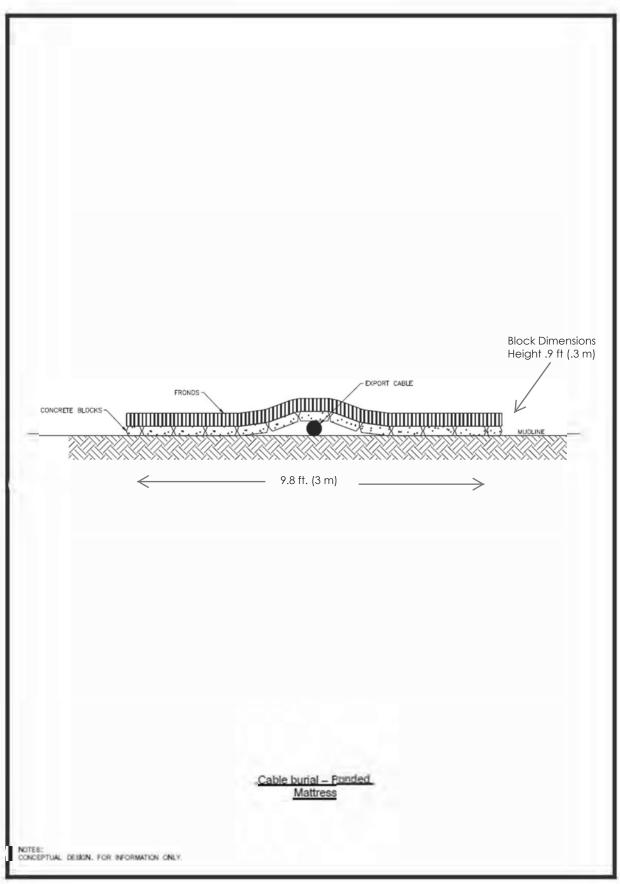
150mm² cable diameter = 130.1mm (5.1 in) +/-4% 300mm² cable diameter = 141.2mm (5.6 in) +/-4% 800mm² cable diameter = 172.5mm (6.7 in) +/-4%

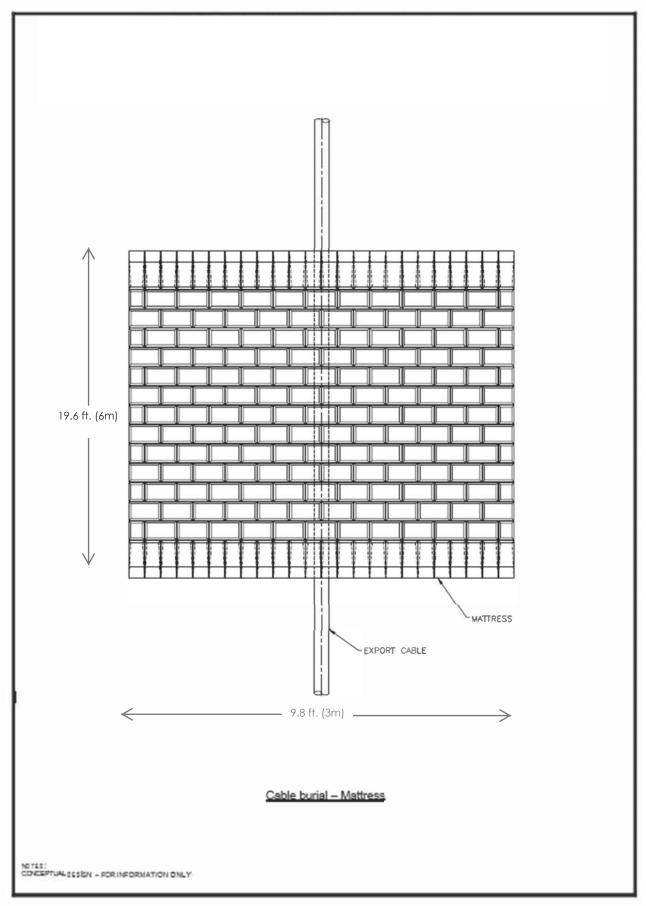
Inter-array Cable Burial Depth (not to scale)

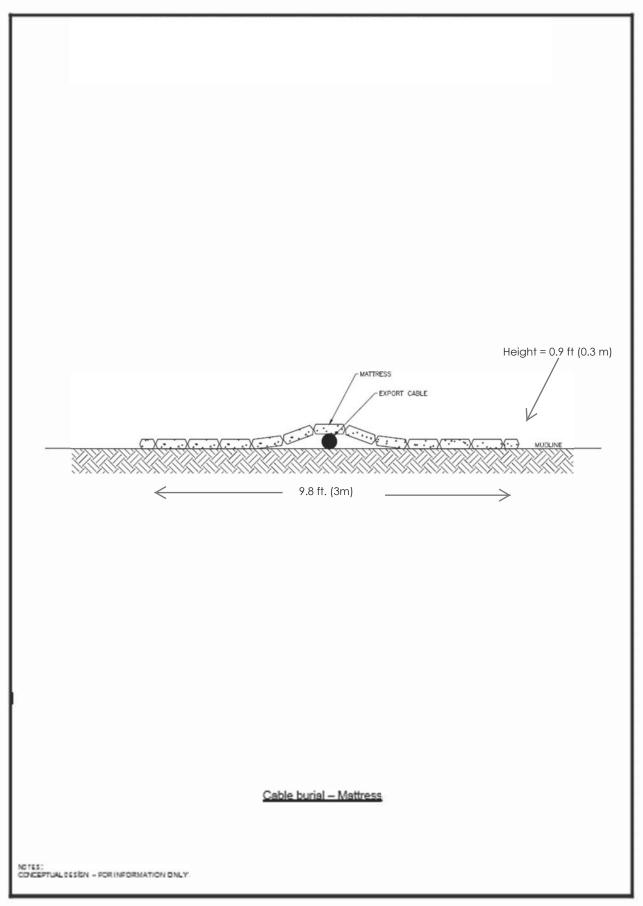


 150mm^2 cable diameter = 130.1 mm (5.1 in) +/-4% 300mm^2 cable diameter = 141.2 mm (5.6 in) +/-4% 800mm^2 cable diameter = 172.5 mm (6.7 in) +/-4%

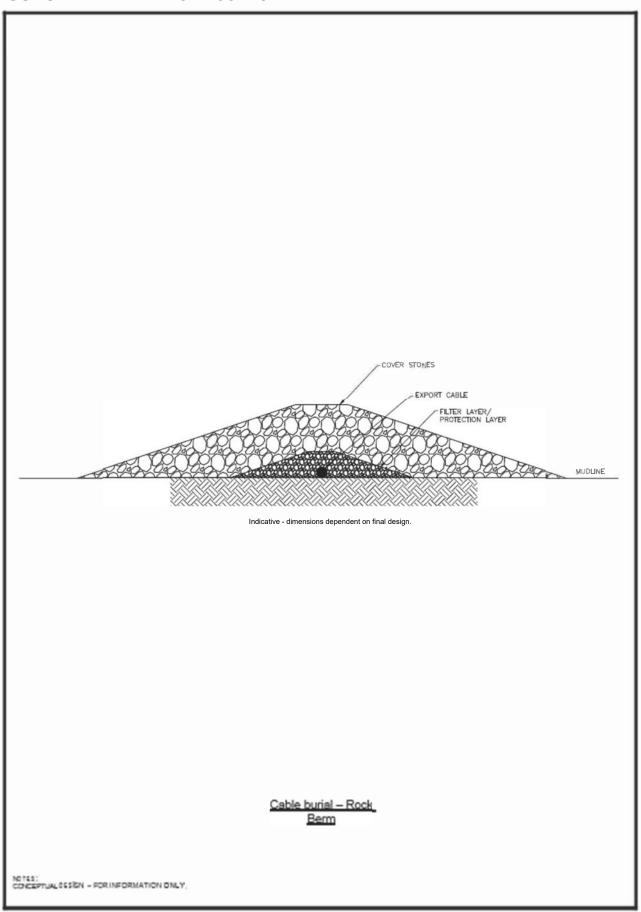


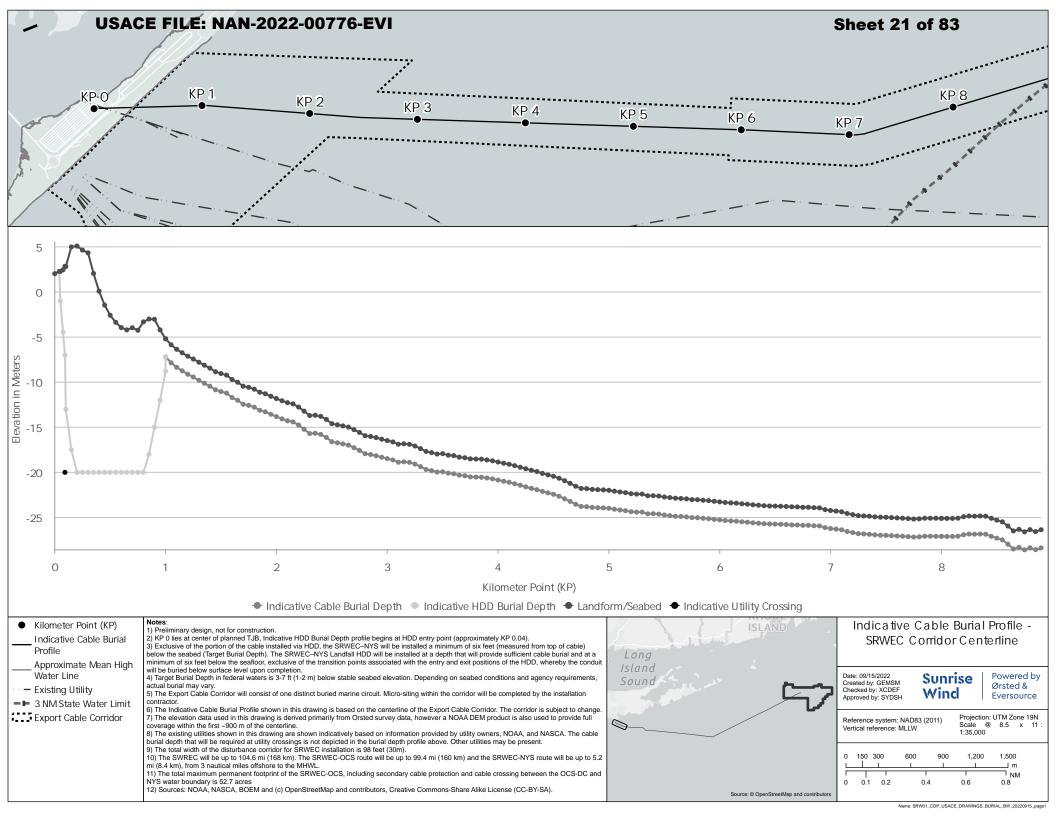


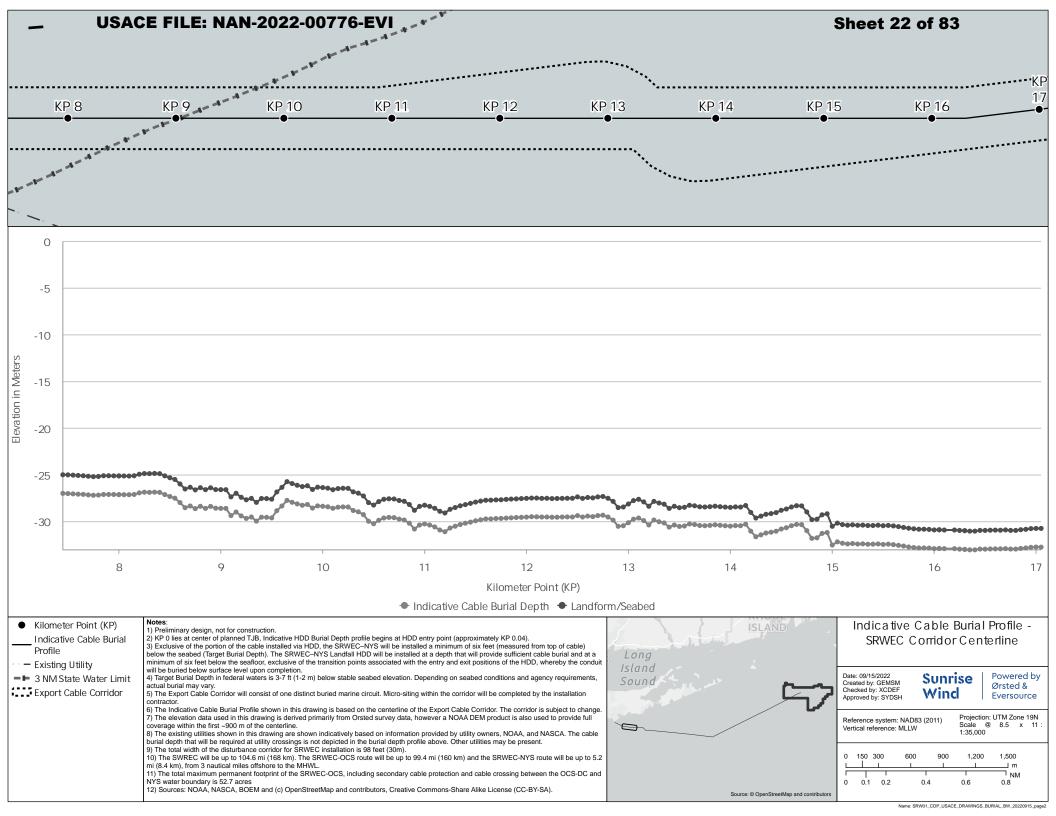


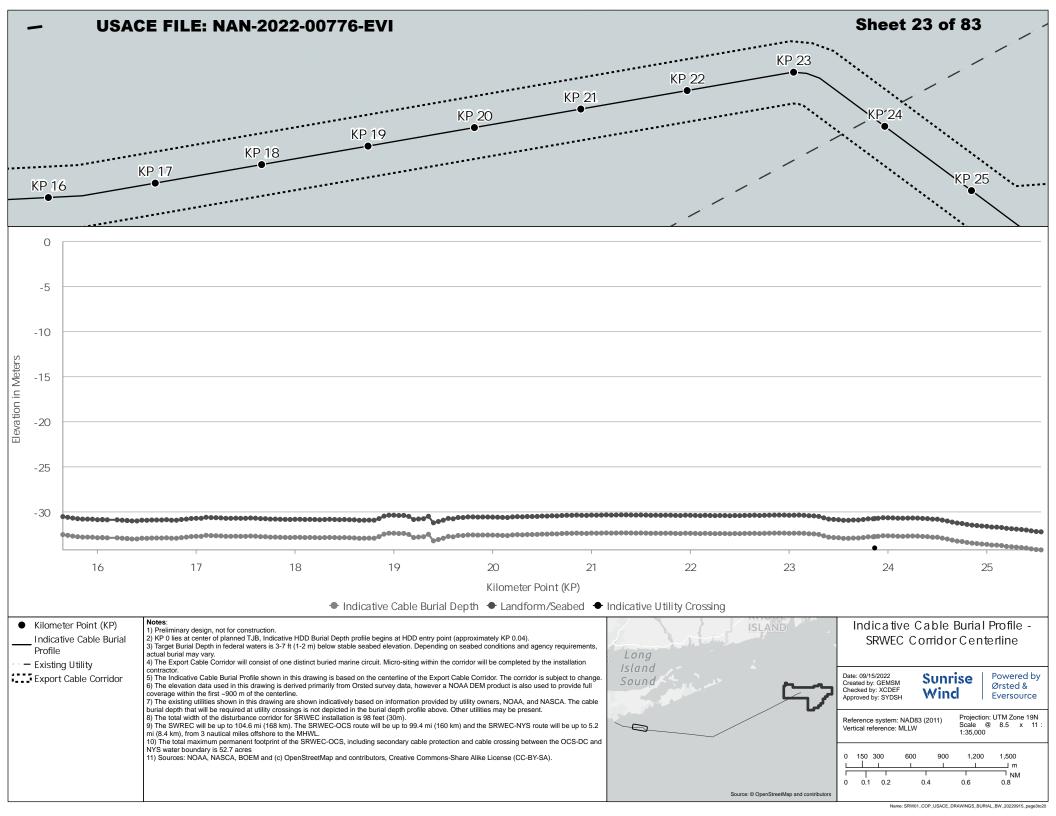


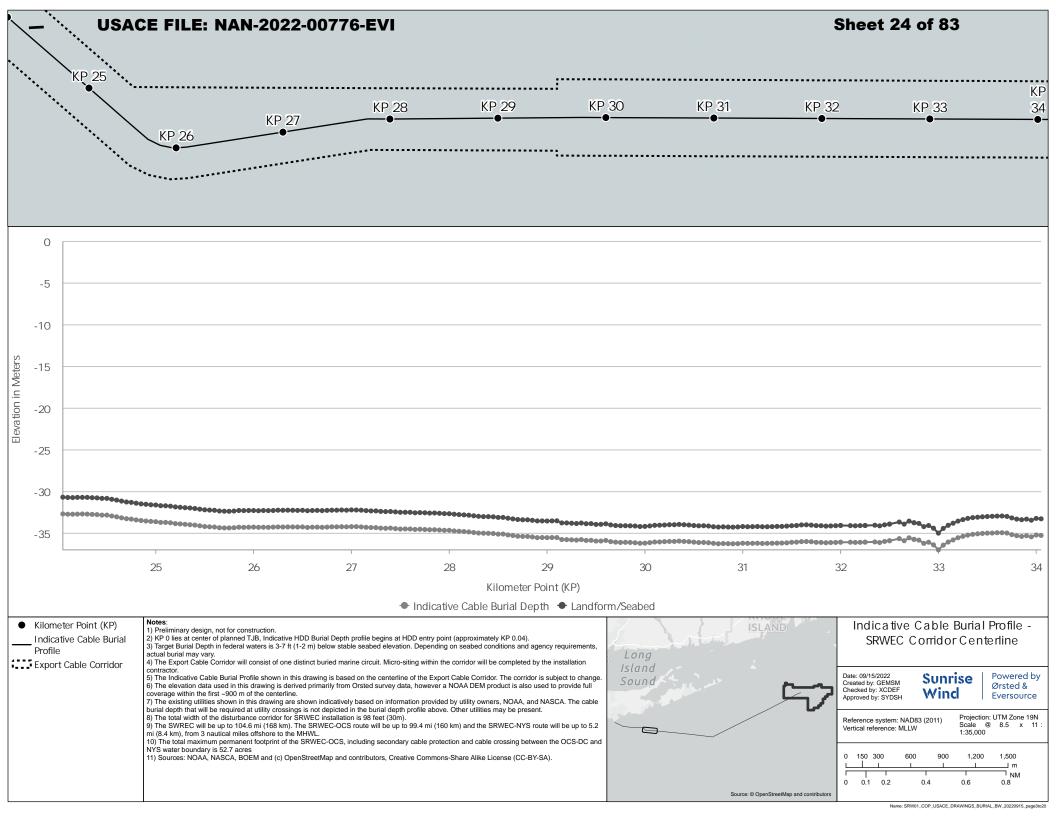
USACE FILE: NAN-2022-00776-EVI -ROCK BAG EXPORT CABLE Indicative - dimensions dependent on final design. CABLE BURIAL -ROCK BAGS OR GROUT BAGS

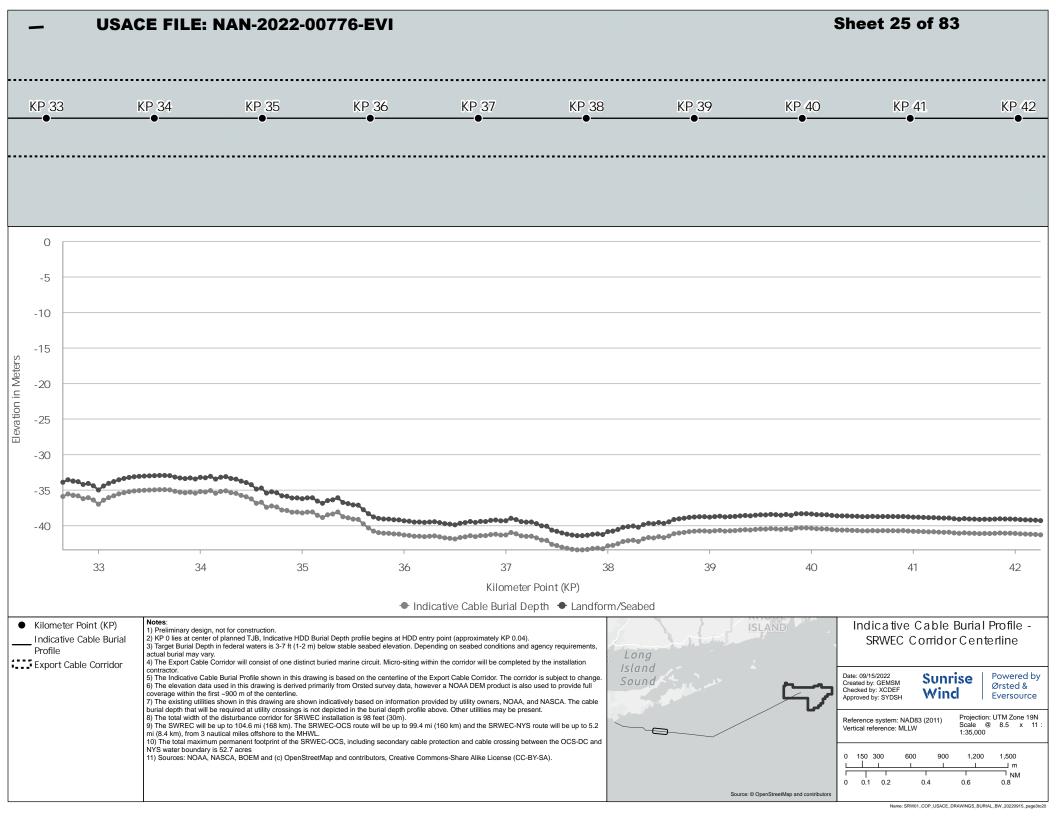


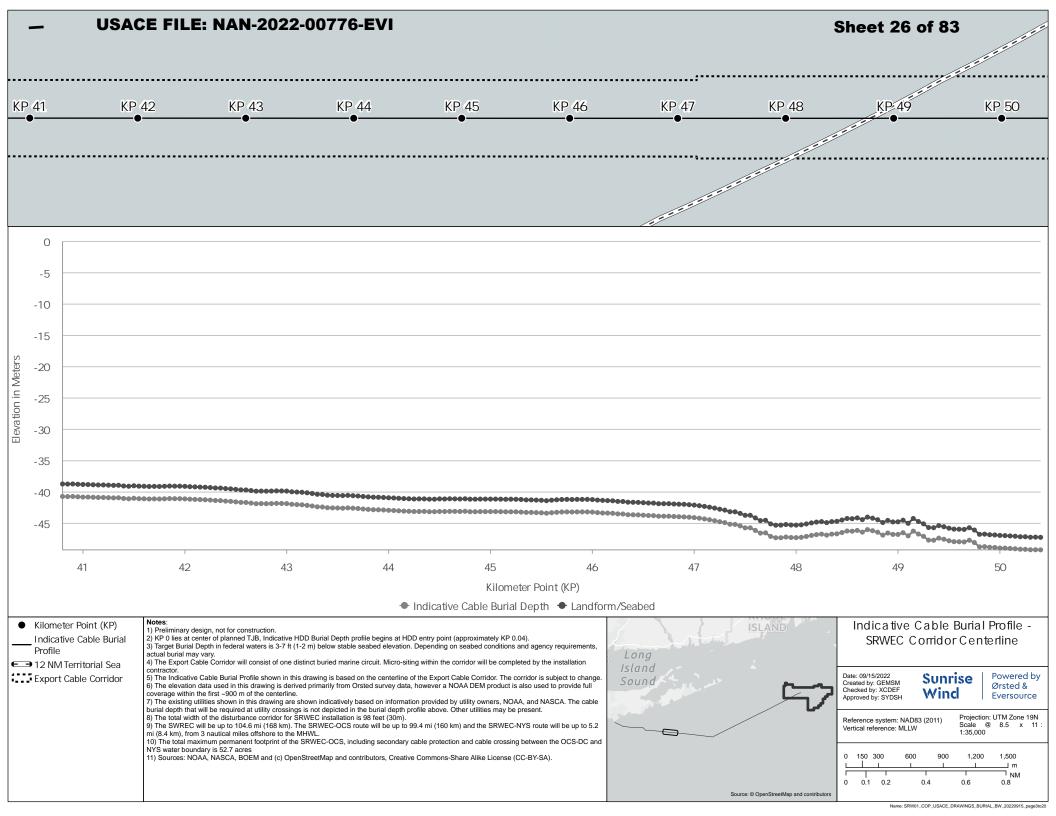


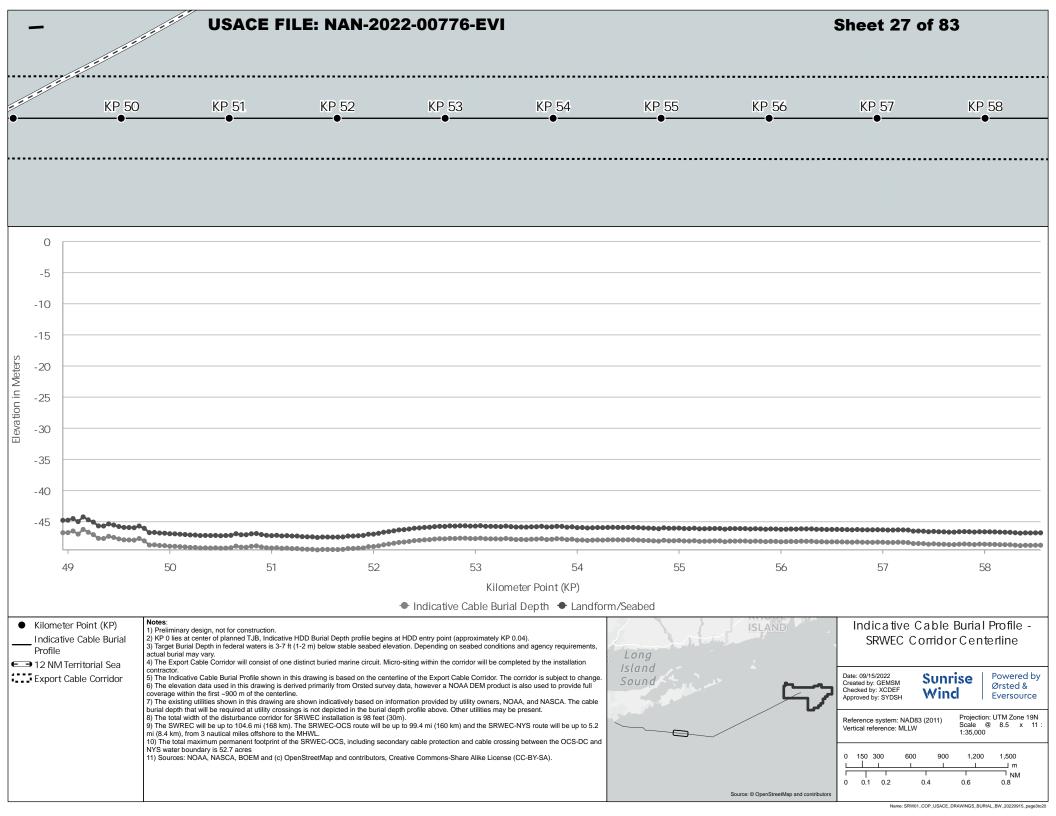


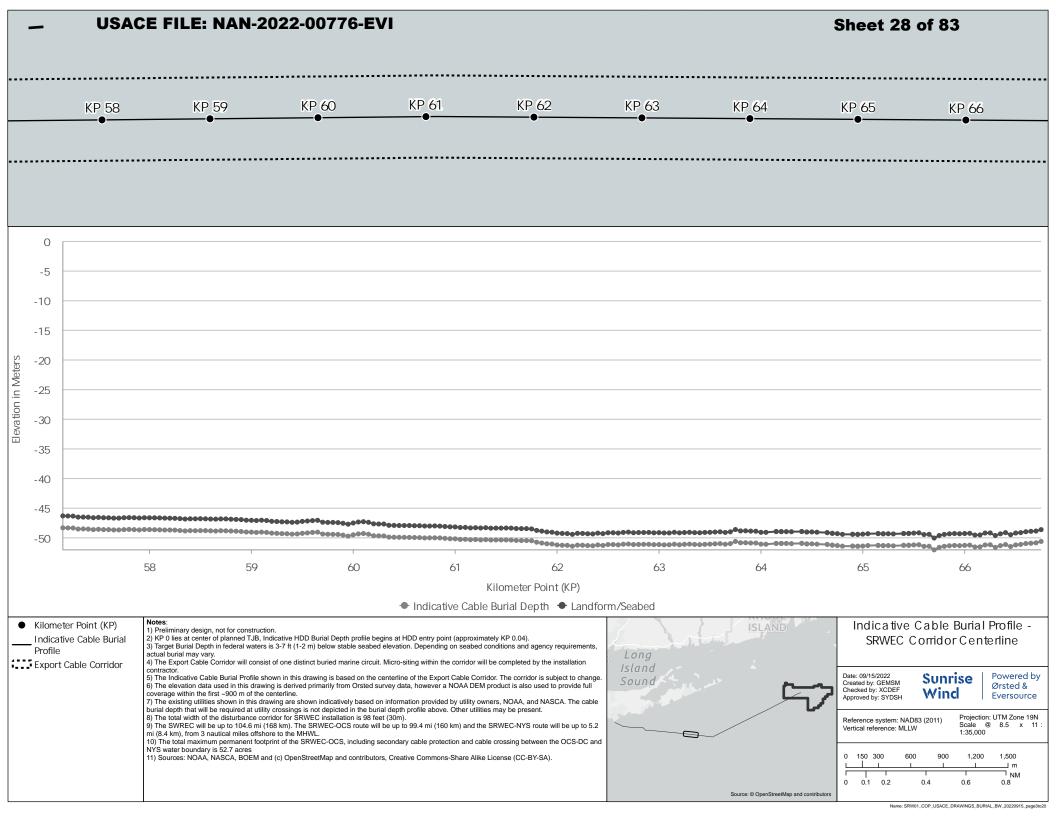


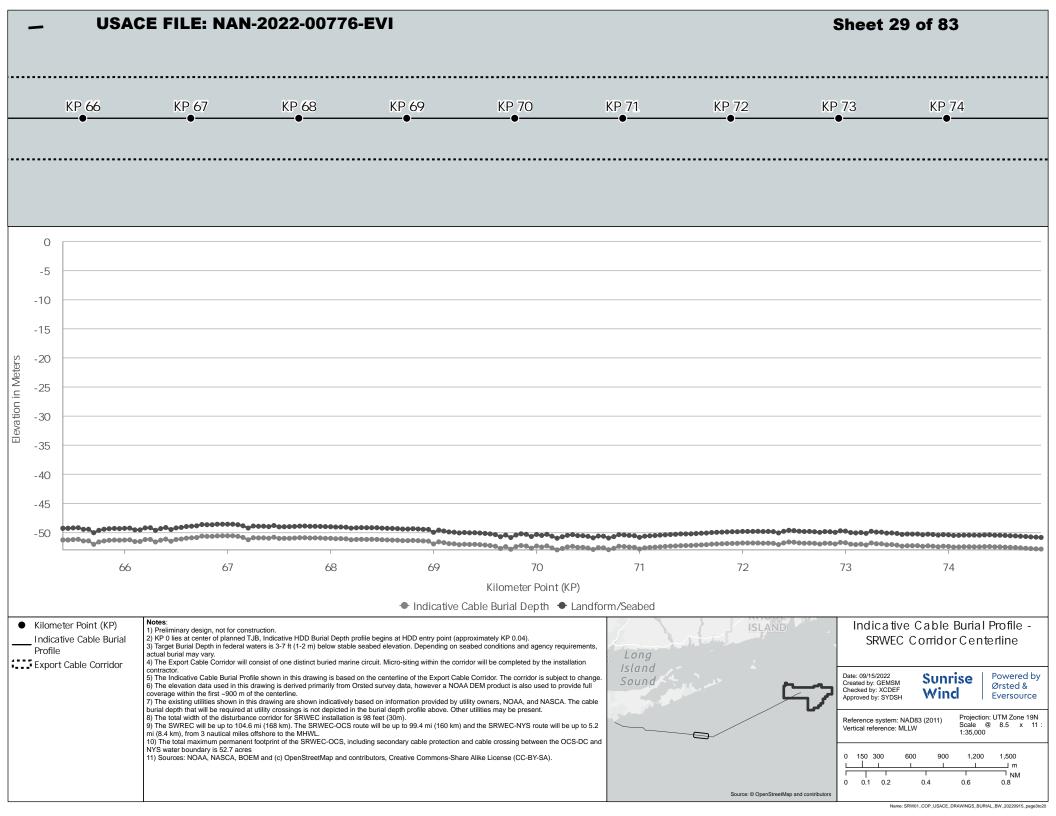


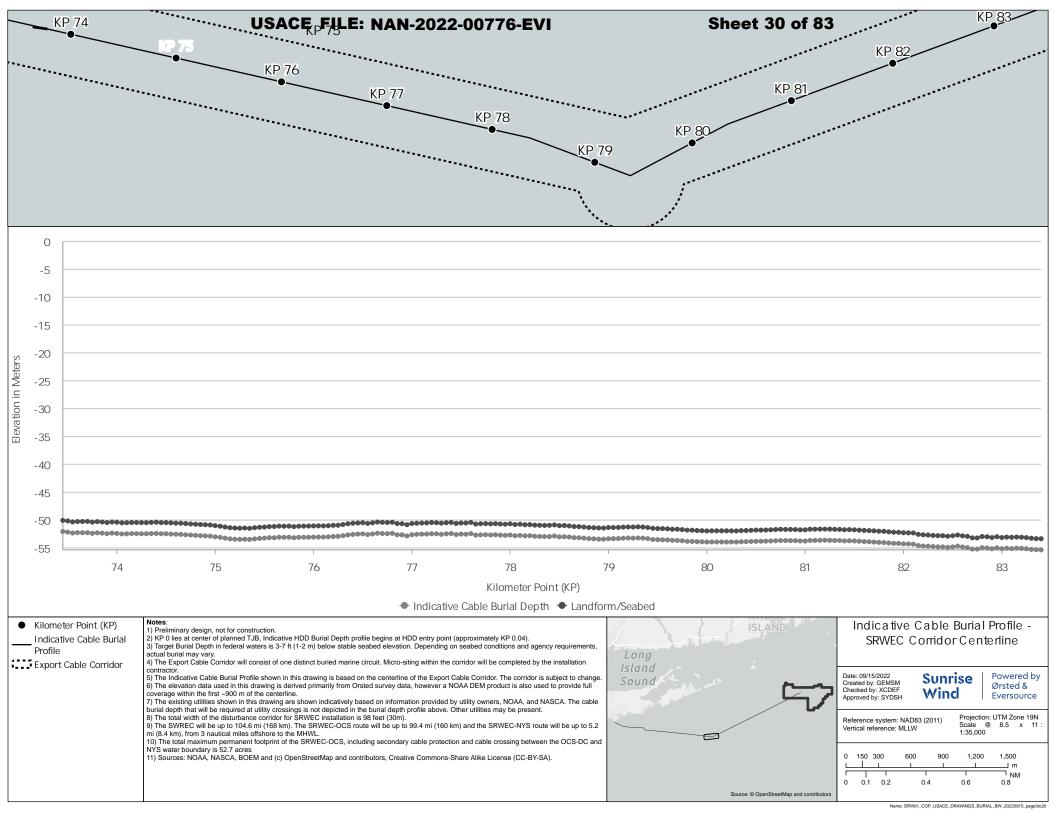


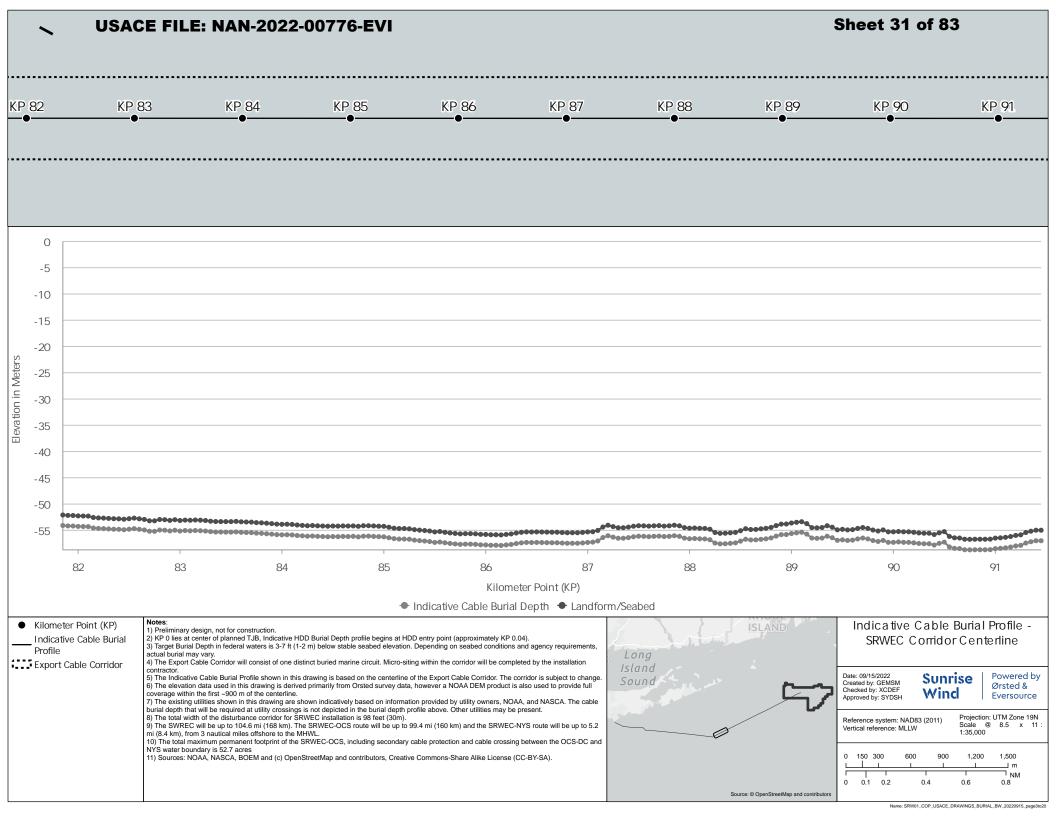


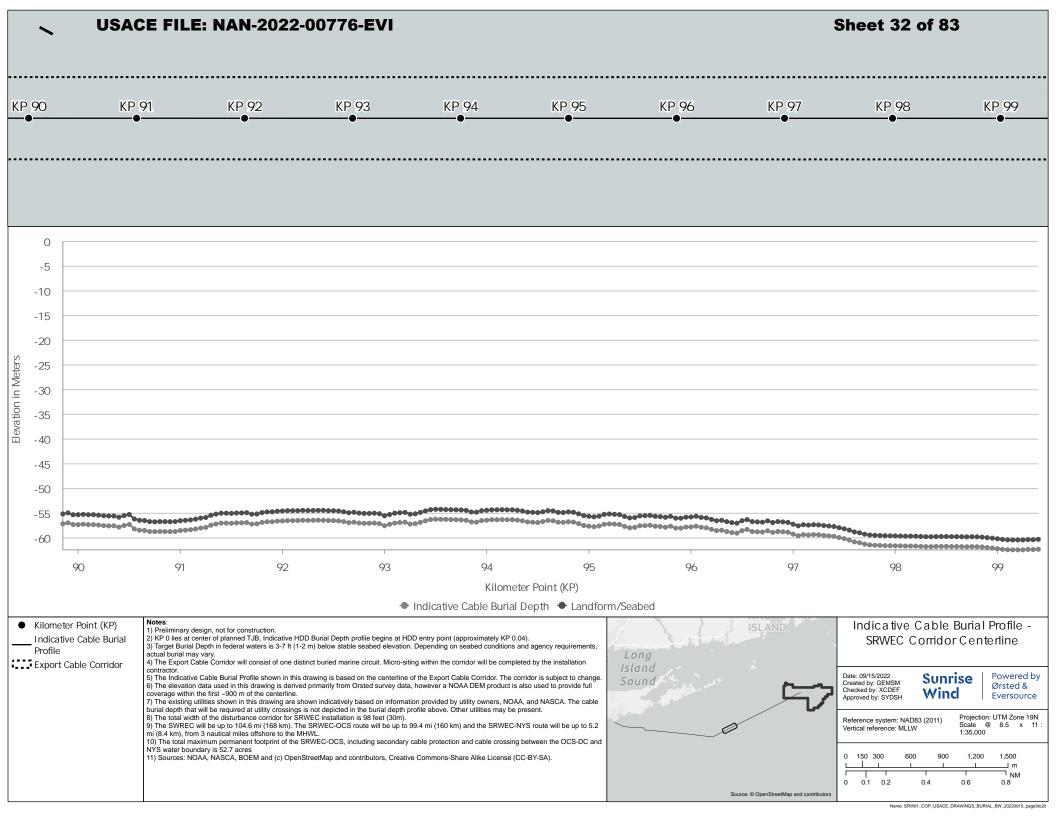


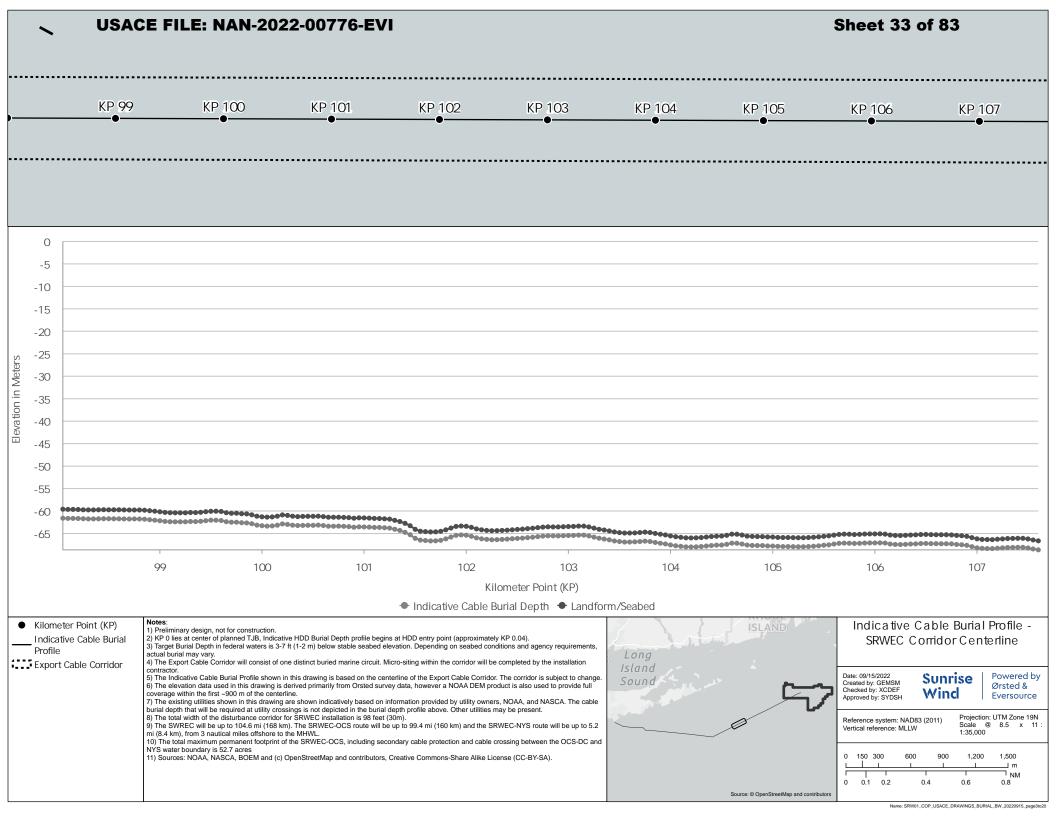


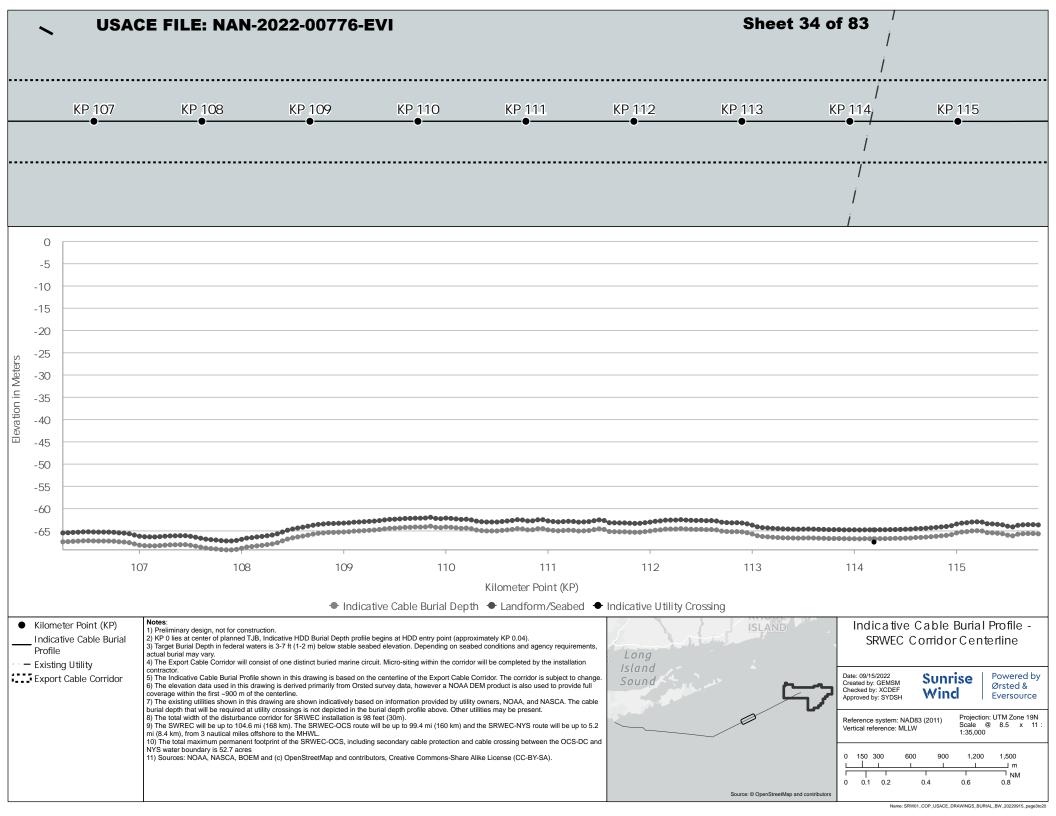


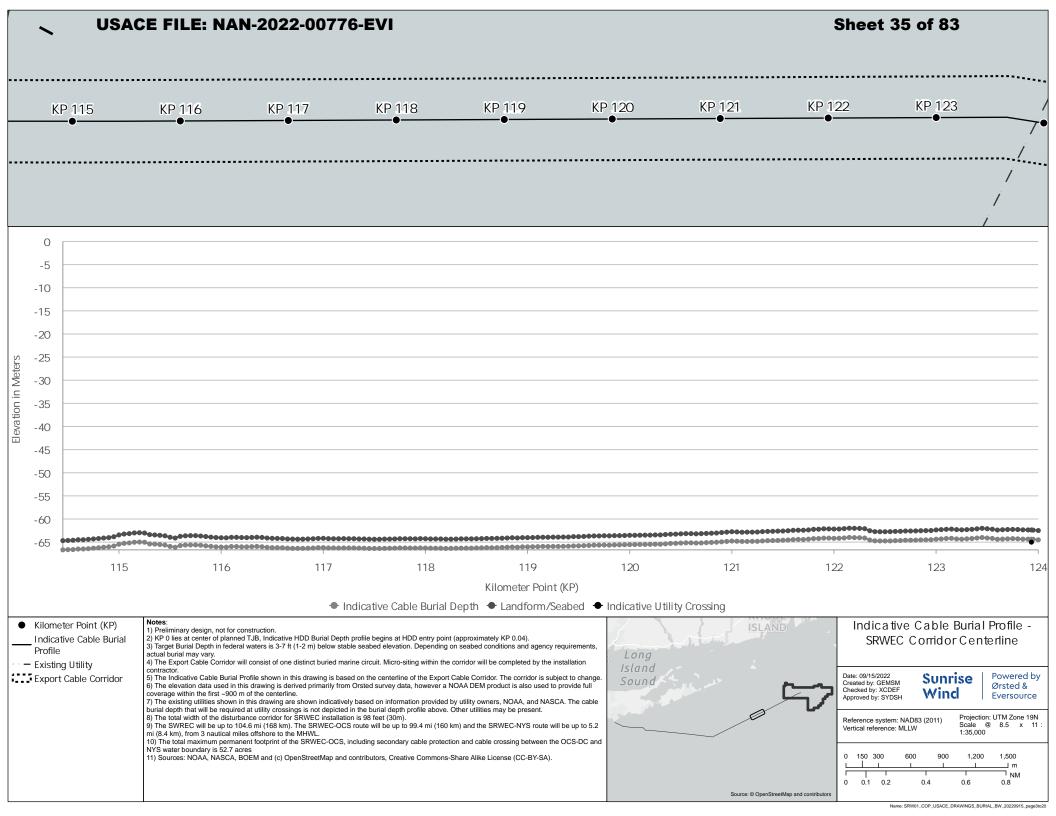


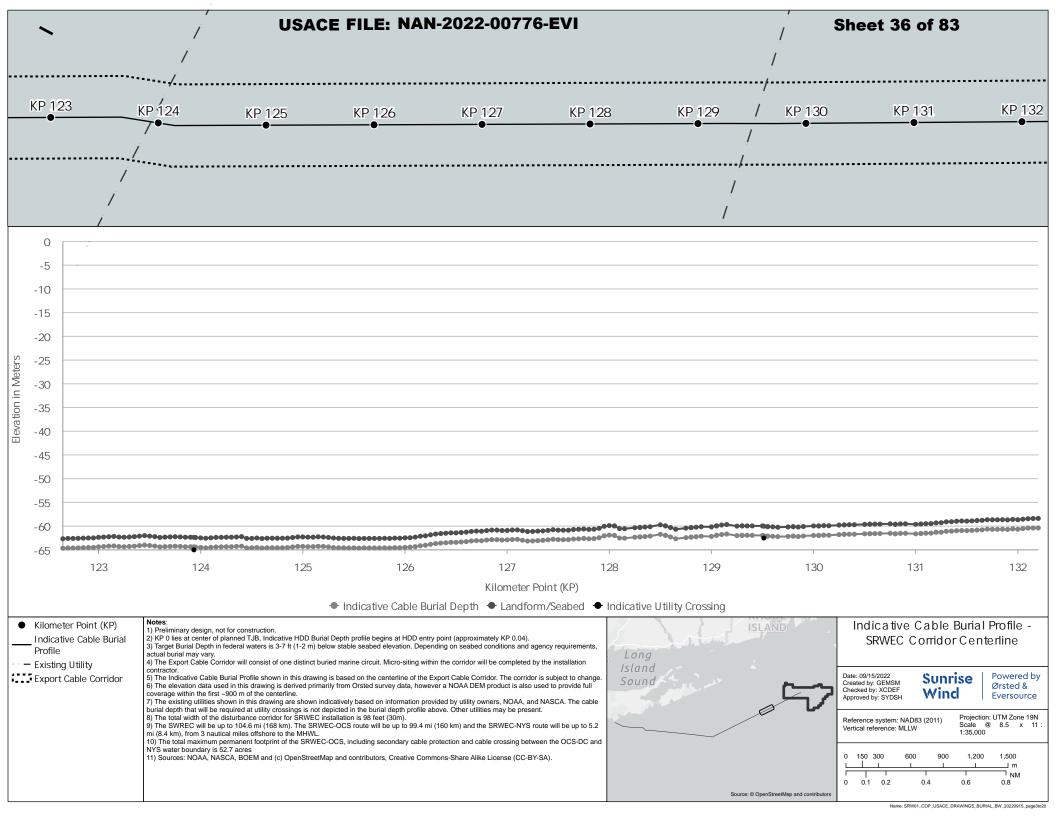


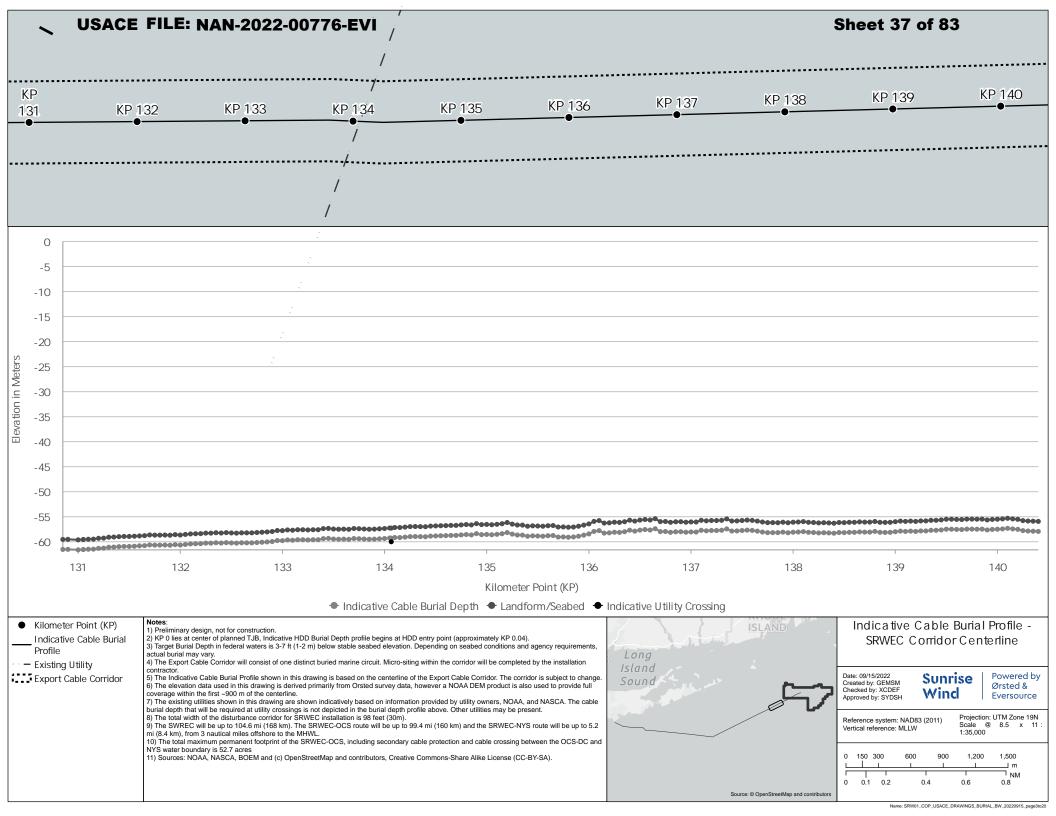


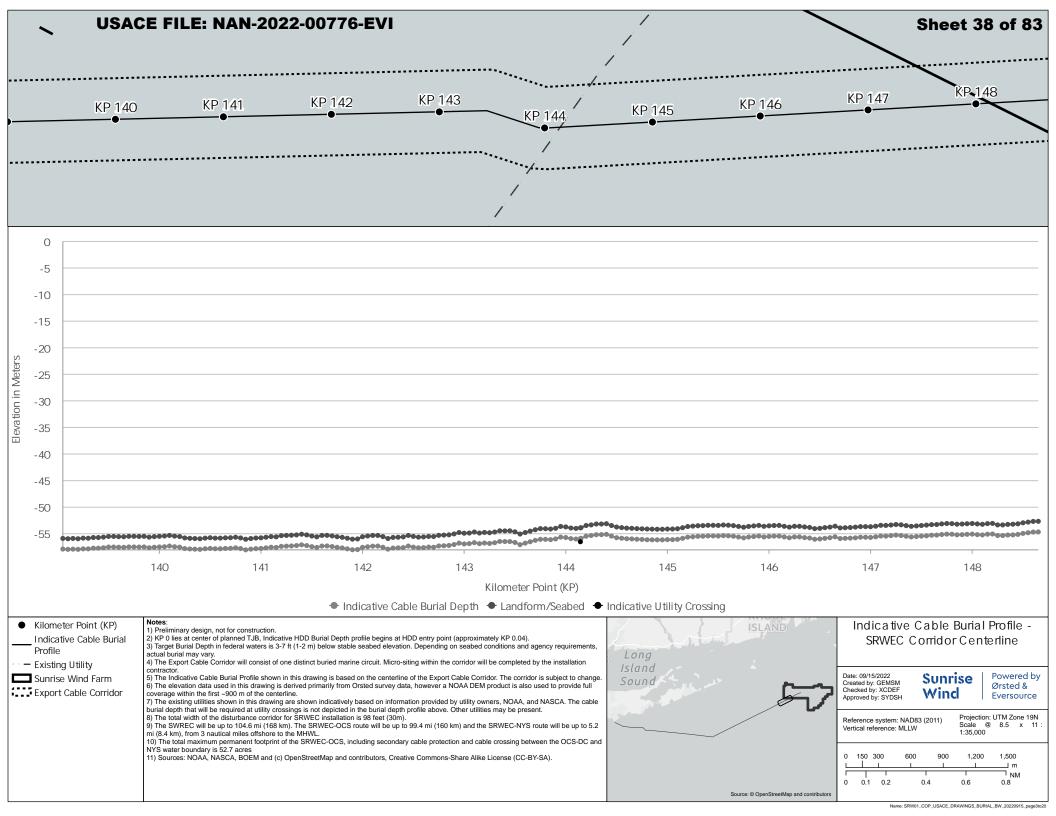


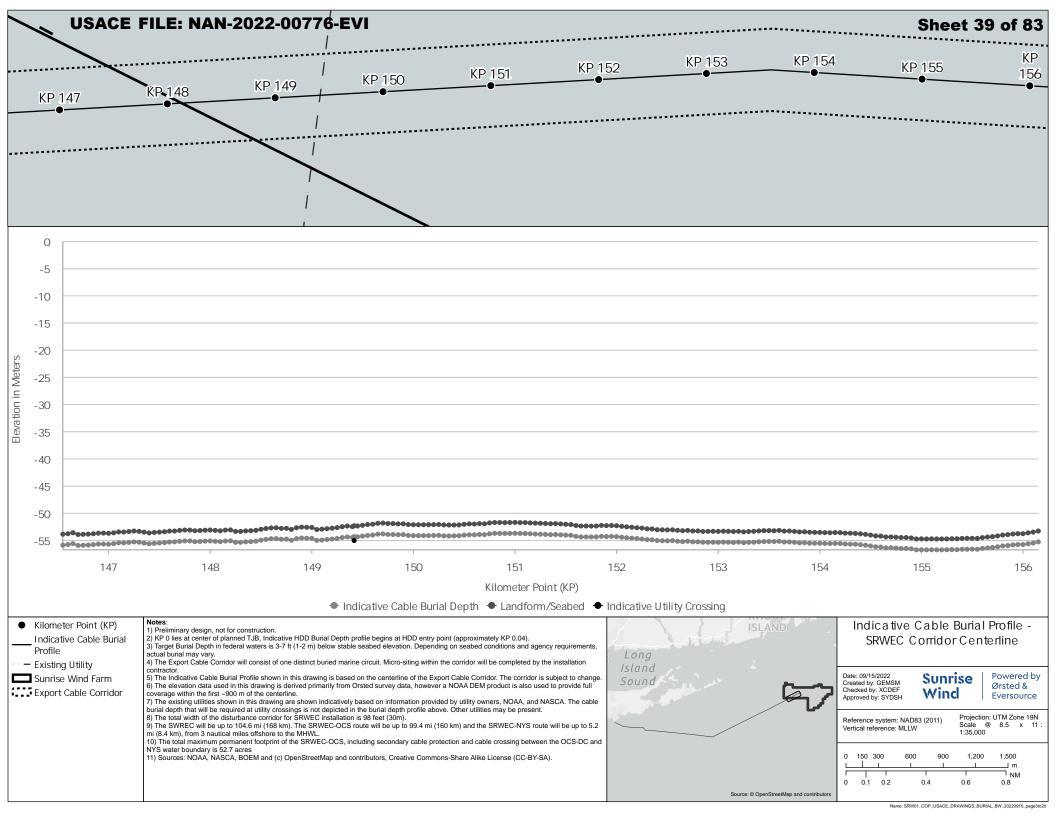


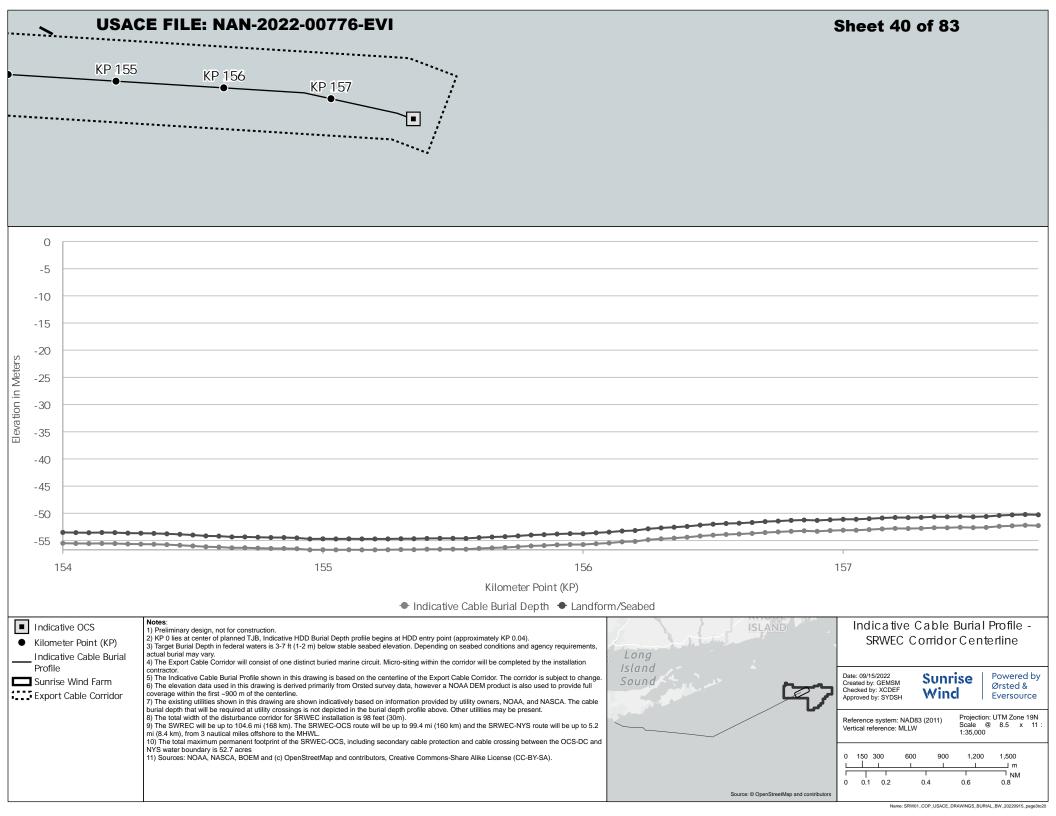


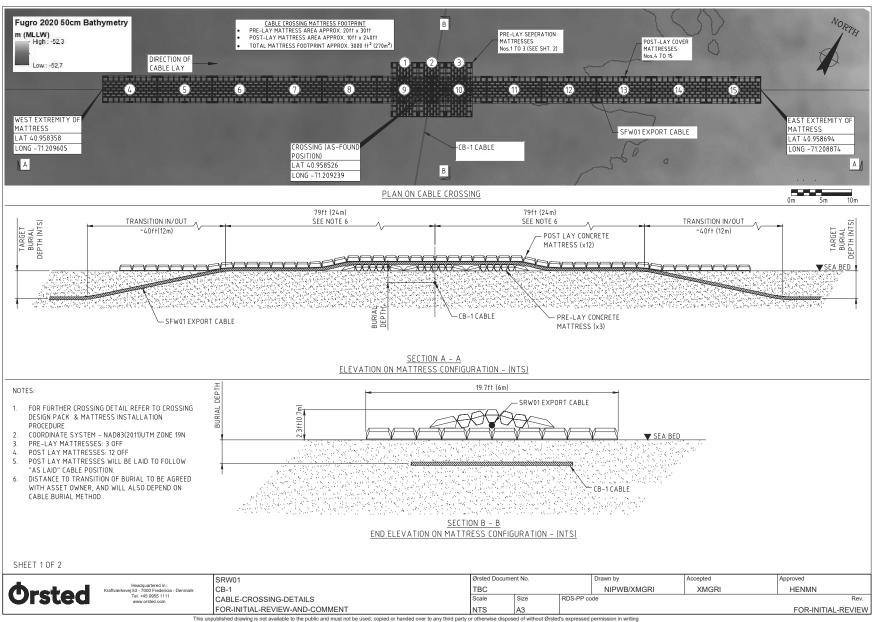


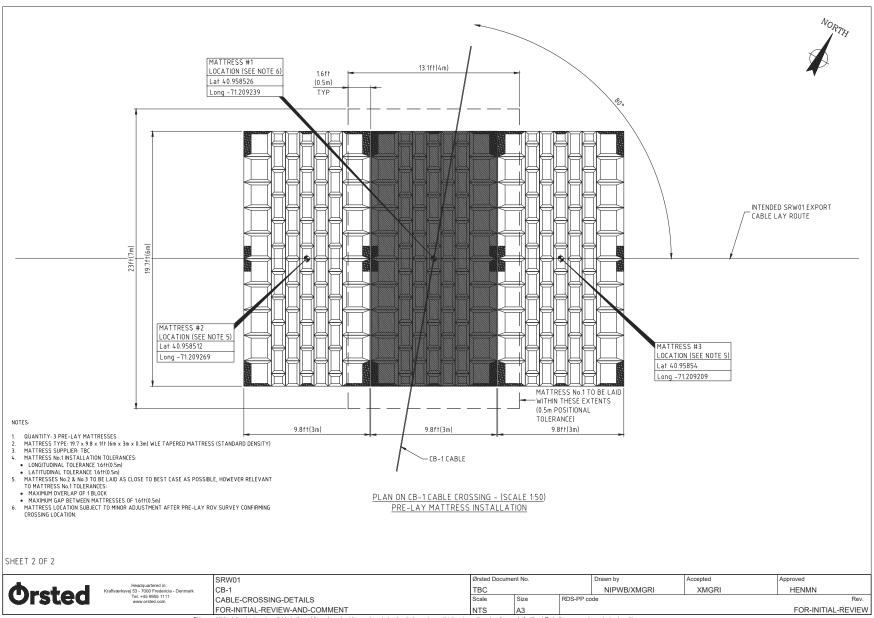


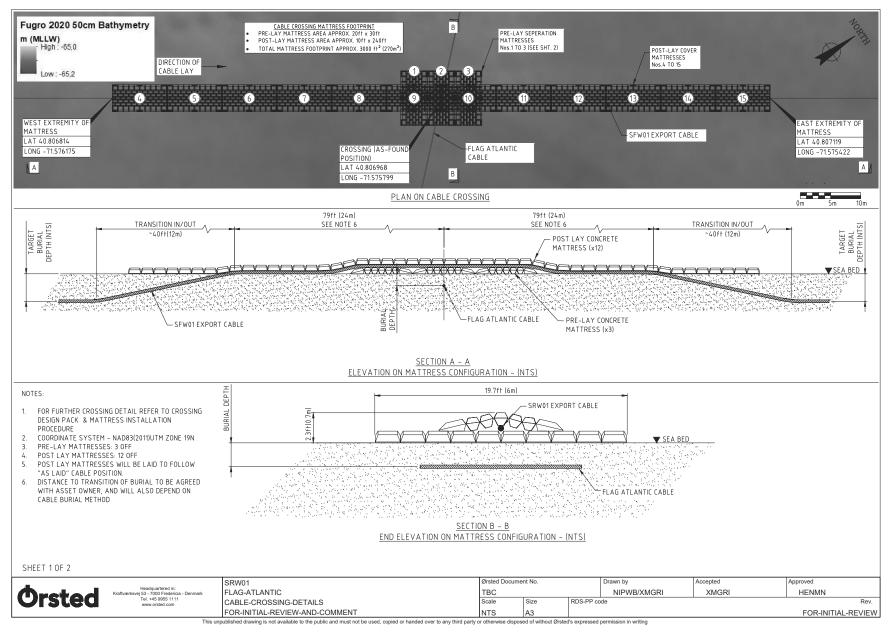


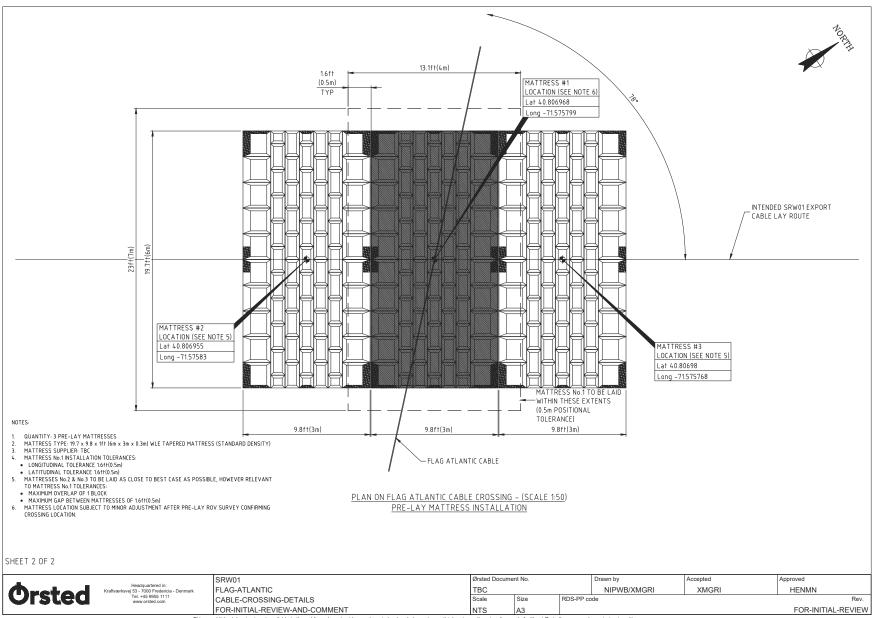


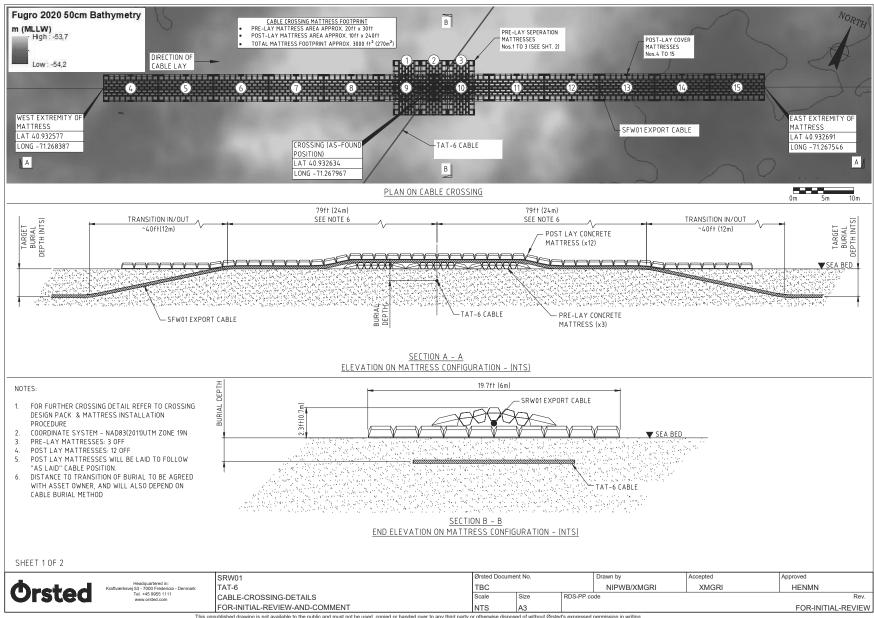


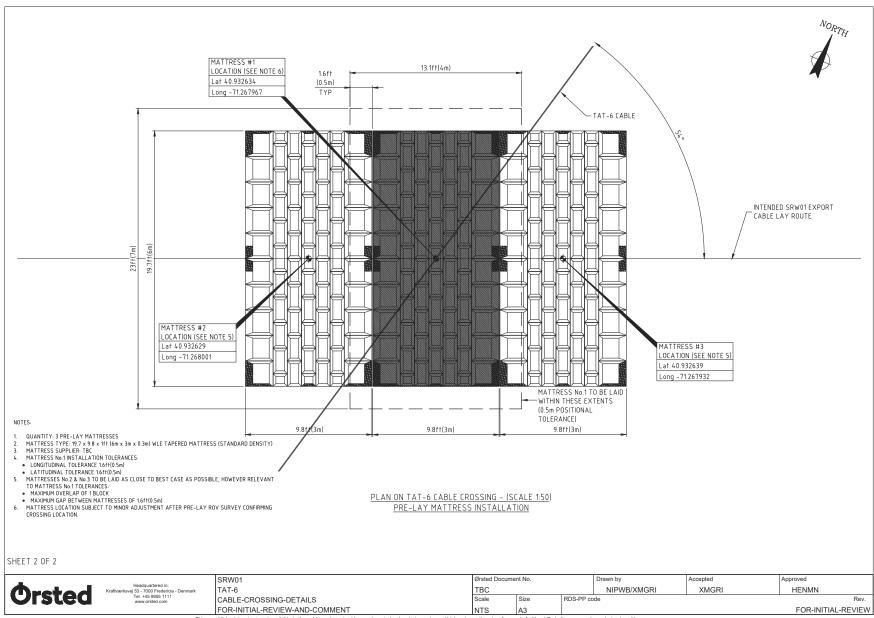


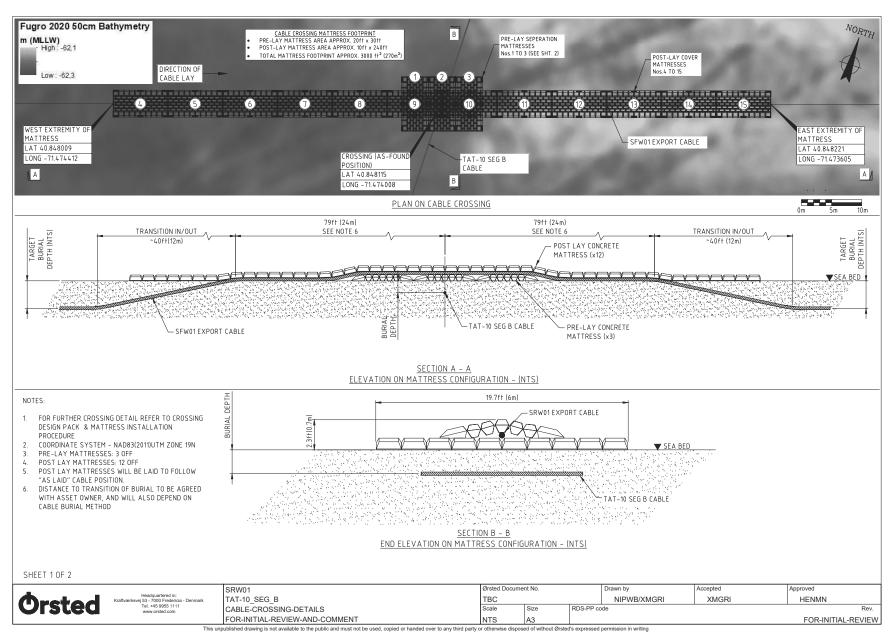


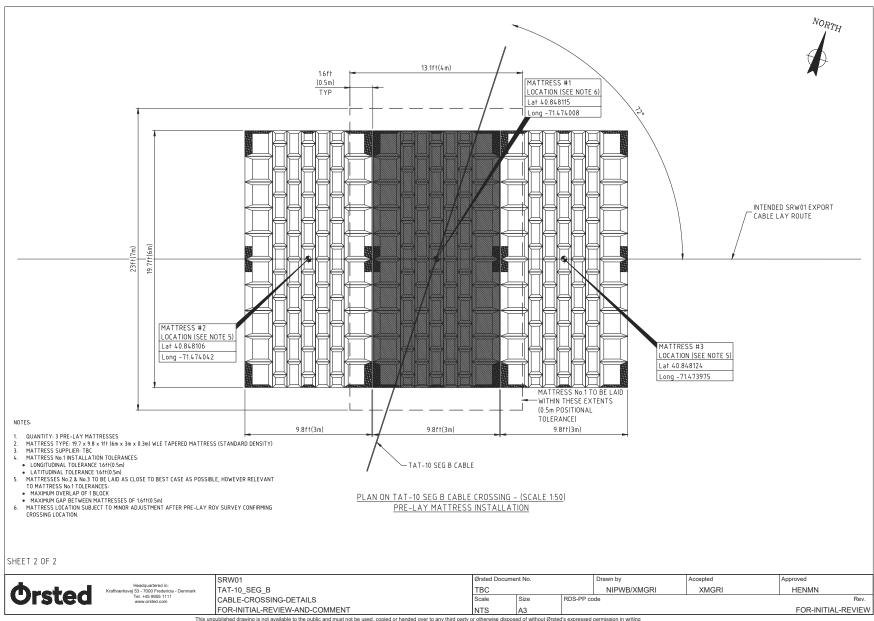


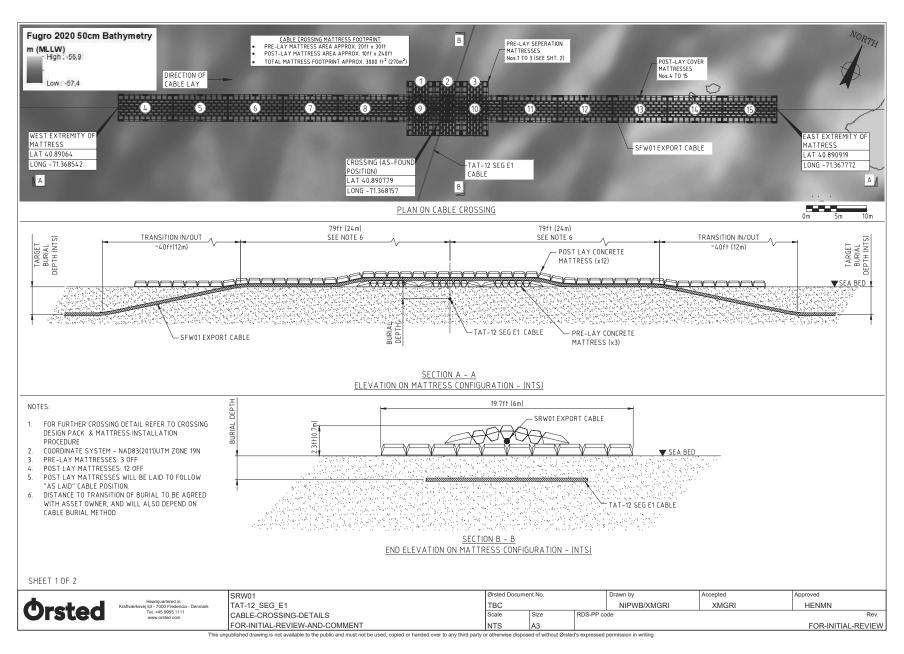


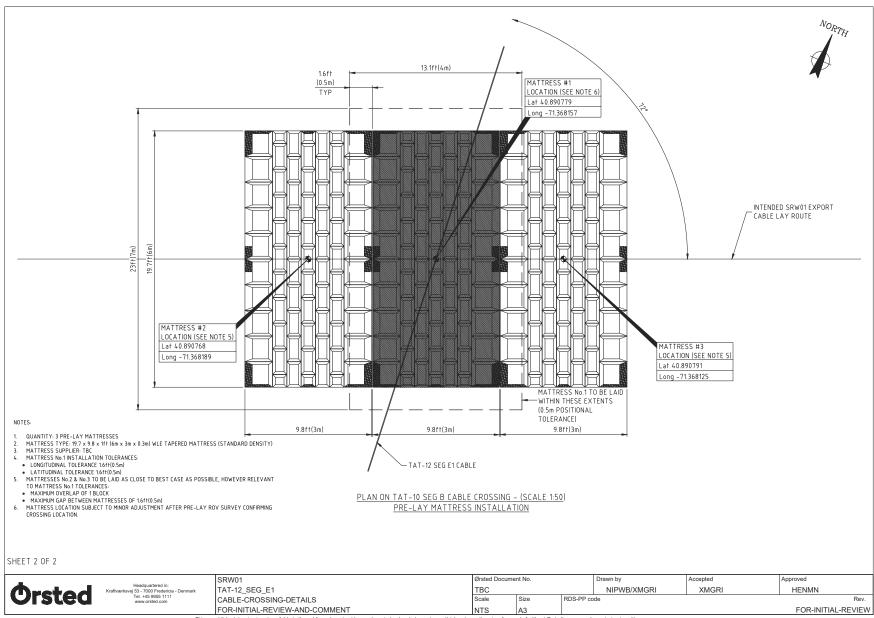


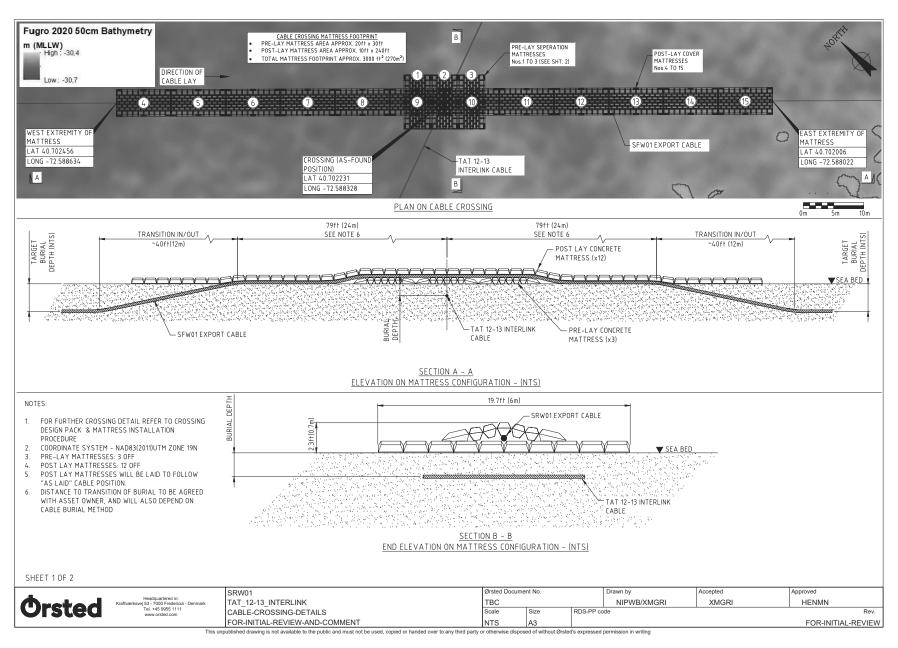


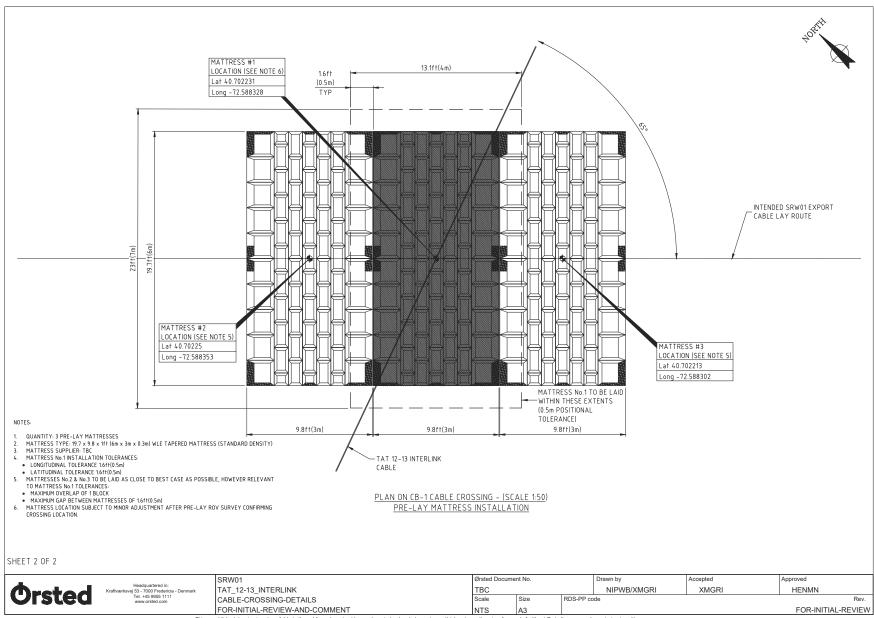




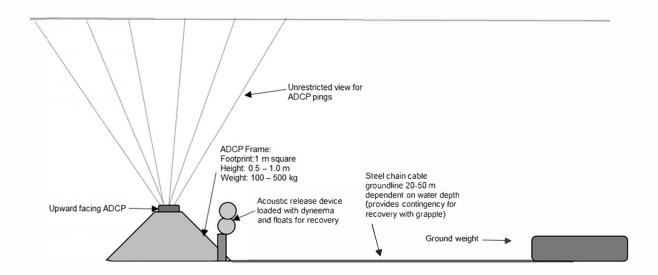


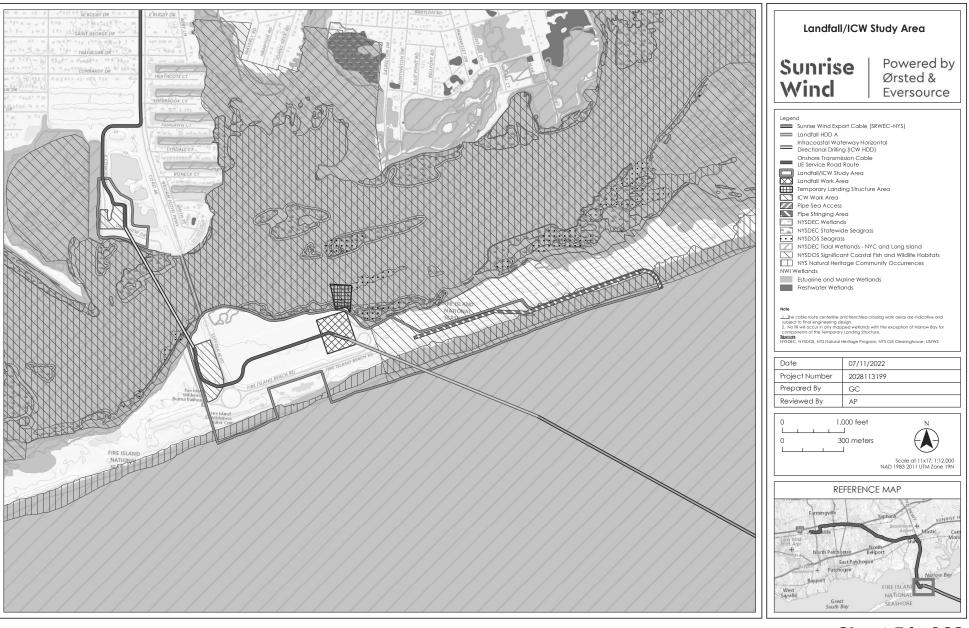






Orsted Acoustic Doppler Current Profiler





Sheet 54 of 83



ORSTED - SUNRISE WIND TEMPORARY LANDING STRUCTURE SUFFOLK COUNTY, NEW YORK



LOCATION MAP

SHEE	DRAWIN	
T NO.	G NO.	DRAWING TITLE
		GENERAL
1	G-1	TITLE SHEET AND DRAWING INDEX
2	G-2	GENERAL NOTES
3	G-3	SITE LAYOUT
4	G-4	STIE PLAN & TYPICAL MOORING ARRANGEMENT
		STRUCTURAL
5	S-1	TEMPORARY PIER - PLAN & ELEVATION
6	S-2	TEMPORARY PIER - SECTIONS
7	S-3	PILE DETAILS & SCHEDULE
8	S-4	STRUCTURAL FRAMING DETAILS
9	S-5	ABUTMENT & SHORESIDE INTERFACE DETAILS



SITE MAP

DRAWING INDEX

					WSP USA Inc. 16200 Park Row
					- Suite 200
					Houston, TX 77084 TEL: (832) 384-7814
					IEL: (832) 384-7814
MARK	REVISION DESCRIPTION	BY	APP.	DATE	





>	DRAWN BY	ER
	DESIGN BY	DAS
WEER	CHECK BY _	/KK_
<i>]</i>	PROJ MGR	JS_
_		

ORSTED SUNRISE WIND TEMPORARY LANDING STRUCTURE NARROW BAY, SUFFOLK COUNTY, NEW YORK

TITLE SHEET AND DRAWING LIST

DRAWING NO.	G-1
PROJECT NO.	31300229
DATE:	11/9/22
SHEET NO	

90% SUBMITTAL

GENERAL NOTES

CODES AND STANDARDS

- CODES & STANDARDS SHALL BE BASED ON THE LATEST EDITION AS OF DATE SUBMITTED FOR PERMIT.
- STRUCTURES SHALL CONFORM TO THE REQUIREMENTS OF THE INTERNATIONAL BUILDING CODE, LATEST VERSION.
- 3. DESIGN WIND SPEEDS SHALL BE PER THE NEW YORK BUILDING CODE.
- REINFORCED CONCRETE WORK SHALL CONFORM TO THE REQUIREMENTS OF THE LATEST VERSION OF ACI "SPECIFICATIONS FOR CONCRETE CONSTRUCTION" (ACI 301) AND "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE" (ACI 318).
- STRUCTURAL AND MISCELLANEOUS STEEL FABRICATION AND ERECTION THEREOF SHALL CONFORM TO THE LATEST VERSION OF AISC SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS (AISC 360) AND CODE OF STANDARD PRACTICE FOR BUILDINGS AND BRIDGES (AISC 303), AND RCSC SPECIFICATION FOR STRUCTURAL JOINTS (USING HIGH-STERMOTH BOLTS.
- WELDING OF STRUCTURAL AND MISCELLANEOUS STEEL SHALL CONFORM TO AWS "STRUCTURAL WELDING CODE - STEEL" (AWS D1.1).
- WELDING OF ALUMINUM SHALL CONFORM TO AWS "STRUCTURAL WELDING CODE - ALUMINUM" (AWS D1.2).
- 8. WELDING OF REINFORCING STEEL SHALL CONFORM TO AWS "STRUCTURAL WELDING CODE REINFORCING STEEL"(AWS D1.4).
- WELDING OF STAINLESS STEEL SHALL CONFORM TO AWS "STRUCTURAL WELDING CODE - STAINLESS STEEL" (AWS D1.6).

GENERAL

- THESE NOTES CONTAIN GENERAL INFORMATION AND ARE NOT COMPLETE FOR CONSTRUCTION PURPOSES. CONTRACTOR SHALL VERIF INFORMATION GIVEN HERE WITH SPECIFICATIONS AND OTHER DOCUMENTS AND BRING ANY CONPLICTS TO THE ATTENTION OF THE DESIGNER BEFORE BEGINNING AFFECTED WORK. THE DESIGNER BWILL RESOLVE ANY SUCH CONFLICT. REFER ALSO TO PROJECT SPECIFICATIONS.
- ALL SHOP DRAWINGS AND MATERIAL CERTIFICATIONS FOR CONCRETE ELEMENTS, REINFORCING STEEL, MISCELLANEOUS STEEL, FENDER SYSTEM AND ALL OTHER DETAILS SHALL BE SUBMITTED TO AND REVIEWED BY THE DESIGNER PRIOR TO FABRICATION.
- VERIFY DIMENSIONS AND DETAILS, EXISTING AND NEW, PRIOR TO FABRICATION OR CONSTRUCTION. ENSURE COORDINATES ARE NOTED AS TO WHICH DATUM IS BEING USED.
- PERFORM WORK IN ACCORDANCE WITH ALL APPROVED LOCAL
 REGULATIONS, APPROVED PERMIT REQUIREMENTS, APPLICABLE STATUTORY
 AND REGULATORY REQUIREMENTS, AND ALL PERTINENT AND APPLICABLE
 BEST MANAGEMENT PRACTICES.

PROJECT DATUM

- HORIZONTAL DATUM IS BASED ON WORLD GEODETIC SYSTEM 83 UNIVERSAL
 TRANSVERSE MERCATOR ZONE 18E.
- 2. VERTICAL DATUM IS BASED ON MEAN LOW WATER (MLW)
- ALL COORDINATES AND ELEVATIONS LISTED IN THE DRAWINGS AND SPECIFICATIONS ARE REFERENCED TO THE AFOREMENTIONED DATUMS.
- 4. ALL DIMENSIONS ARE IN FEET & INCHES, UNLESS NOTED OTHERWISE
- 5. SITE TIDAL DATUM ELEVATIONS:

TIDE	MLW DATUM (FT)
MHHW	+2.34
MHW	+2.18
MUW	+0.88

PROJECT SURVEY

- CONTOURS SHOWN ON THE DRAWINGS ARE BASED ON THE BATHYMETRIC SURVEY RECEIVED IN OCTOBER 2022.
- 2. CONTRACTOR SHALL INDEPENDENTLY VERIFY ALL EXISTING CONDITIONS AND LOCATIONS SHOWN AND BRING TO THE DESIGNER'S ATTENTION IF OTHER CONDITIONS NOT SHOWN HEREIN ARE PRESENT WHICH MAY BE AFFECTED BY THE MARINE WORK. THE APPROVED PERMIT REQUIREMENTS WILL BE RESPECTED.
- TEMPORARY PILES/STRUCTURES WILL BE REMOVED ON COMPLETION OF THE PROJECT PRIOR TO PROJECT HANDOVER.
- DESIGN AND CONSTRUCTION WILL LAY EMPHASIS ON MAINTAINING OR KEEPING INTACT EXISTING INFRASTRUCTURE, STRUCTURES, AND UTILITIES TO THE FXTENT POSSIBLE AS INDICATED IN THE PERMIT.
- DEBRIS AND TRASH WILL BE HANDLED PER APPROVED PROTOCOLS. THE INTENT IS TO ADHERE TO ALL PERMIT REQUIREMENTS AND EMPLOY BEST MANAGEMENT PRACTICES.

CONCRETE (AS USED)

- 1. FOR CONCRETE MATERIAL REQUIREMENTS, REFER TO SPECIFICATIONS
- CONSTRUCTION JOINTS SHALL BE PROVIDED ONLY AS NOTED ON THE DRAWINGS AND AS SPECIFICALLY PERMITTED BY THE DESIGNER.
- ALL EXPOSED CORNERS SHALL BE CHAMFERED ³/₄ INCHES UNLESS SHOWN OTHERWISE
- CONCRETE COMPRESSIVE STRENGTHS SHALL BE AS FOLLOWS UNLESS NOTED OTHERWISE:

MIN COMPRESSIVE
MEMBER STRENGTH AT 28 DAYS (PSI)

CONCRETE 500

CONCRETE CLEAR COVER REQUIREMENTS SHALL BE AS FOLLOWS UNLESS
NOTED OTHERWISE:

A.	TOP AND SIDE SURFACES	2 IN
B.	SURFACES AGAINST WHICH FRESH CONC WILL BE PLACED	1 IN
C.	ALL OTHER LOCATIONS UNLESS SPECIFIED OTHERWISE	3 IN

REINFORCEMENT (AS USED)

- ALL REINFORCING STEEL SHALL BE DEFORMED STEEL BARS CONFORMING TO ASTM A615, GRADE 60 EXCEPT REINFORCING STEEL TO BE WELDED SHALL BE ASTM A706, GRADE 60. BARS ISZES SHALL CONFORM TO U.S. CUSTOMARY SIZES AS SHOWN. ALL REINFORCING BAR BEND DIMENSIONS SHOWN ARE OULT.TO-DUIT.
- 2. WIRE FOR SPIRAL REINFORCEMENT SHALL CONFORM TO ASTM A82.
- 3. FOR ACTUAL REINFORCING DETAILING, REFER TO SHOP DRAWINGS. ALL REINFORCEMENT DETAILING SHALL BE PER LATEST VERSION OF ACI-318.
- 4. SPLICING OF LONGTUDINAL REINFORCEMENT OVER AD FEET IN LENGTH, EXCEPT AS SPECIFICALLY NOTED ON THE DRAWINGS, SHALL BE PERMITTED. SPLICES SHALL BE STRAGERED WITH NO MORE THAN 50% OF THE BARS BEING SPLICED AT ANY ONE LOCATION. MINIMUM LENGTH OF LAP SPLICE SHALL BE SO TIMES THE BAR DIAMFER. SPLICES SHALL BE INCREASED FOR TOP BAR CONDITIONS AS PER ACI 318. MINIMUM SPACING BETWEEN LAP SPLICES SHALL BE PER SPECIFICATIONS.
- PROVIDE CORNER BARS AT ALL WALL, CURB, AND CURB WALL CORNERS.
 CORNER BARS SHALL MATCH THE NUMBER/SPACING AND DIAMETER OF ALL
 HORIZONTAL REINFORCEMENT AT THE CORNER. SPLICE CORNER BAR TO
 TERMINATED STRAIGHT BAR WITH A MINIMUM SPLICE LENGTH OF 50 BAR
 DIAMETERS.

PILES

- ALL STEEL PIPE PILES SHALL CONFORM TO ASTM A252 GRADE 3 (MODIFIED TO 50 KSI) OR API SL MIN X50 KSI OR APPROVED EQUIVALENT. REFER TO SPECIFICATIONS
- 2. PILES SHALL BE DRIVEN CONTINUOUSLY TO AN ULTIMATE CAPACITY OF 200 TONS AND A MININUM EMBEDMENT OF 50 FT. IF PRACTICAL REFUSE (DEFINED AS 20 BLOWS), NO FA MINIMUM OF 21 NJ IS ACHIEVED PRIOR TO MINIMUM EMBEDMENT, CONTRACTOR SHALL NOTITY THE ENGINEER. TIP ELEVATIONS SHOWN ARE ESTIMATED AND BASED ON GEOTECHNICAL DATA FROM A NEARBY SITE, AND NOT INTENDED TO REPRESENT ACTUAL SOIL CONDITIONS.

MISCELLANEOUS STEEL

- WHERE APPLICABLE, STEEL PLATES AND BARS SHALL MEET THE REQUIREMENTS OF ASTM A572, GRADE 50, UNLESS NOTED OTHERWISE.
- WHERE APPLICABLE, WIDE FLANGE SHAPES SHALL MEET THE REQUIREMENTS OF ASTM A36, UNLESS NOTED OTHERWISE.
- WHERE APPLICABLE, CHANNEL AND ANGLE SHAPES SHALL MEET THE REQUIREMENTS OF ASTM A36 UNLESS NOTED OTHERWISE.
- WHERE APPLICABLE, RECTANGULAR AND ROUND HSS SECTIONS SHALL CONFORM TO ASTM A500, GRADE C, UNLESS OTHERWISE NOTED.
- 5. ALL MISC. STEEL SHALL HAVE A MINIMUM THICKNESS OF \(\frac{1}{2}\) INCHES UNLESS
- ALL CONNECTORS SHALL BE HOT DIP GALVANIZED ASTM F3125 GRADE 325
 BOLTS WITH STANDARD WASHER AND HEAVY HEX NUT, UNLESS OTHERWISE

LOAD CRITERIA

OUTWARD DIRECTION

PIER LOADING CRITERIA:

UNIFORM LIVE LOAD: 500 PSF

UNIFORM DEAD LOAD: SELF WEIGHT

LATERAL LOAD: 9,000 LBS

LATERAL LOAD: 9,000 LBS
H-324 HK250C EMPTY WEIGHT: 89 300 LBS
H-397 HK300T-HT EQUIPMENT WEIGHT: 69 000 LBS
DRAILS SHALL BE ABLE TO WITHSTAND A 200 LB FORCE IN A DOWNWARD OR

OPERATION

- ... MATERIAL WILL BE BROUGHT VIA ROAD TO SMITH POINT MARINA WHERE A TEMPORARY PILE-SUPPORTED RELIEVING PLATFORM WILL BE INSTALLED. THIS WILL BE USED TO LOAD EQUIPMENT ONTO BARGES WITH A RO-ROOPERATION. THE RELIEVING PLATFORM WILL ESEVE SA OR BIDIDE TO THE BARGE IN ORDER TO AVOID PLACING ANY ADDITIONAL SURCHARGE ON THE EXISTING MARINA RETAINING WALL BARGES WILL BE MOORED AT THE MARINA USING SPUID PILES IN ORDER TO AVOID PLACING ANY MOORING LOADS ON THE EXISTING MARINE RETAINING THE WILL BE MORED AT THE MARINA USING SPUID PILES IN ORDER TO AVOID PLACING ANY MOORING LOADS ON THE EXISTING BULKHEAD.
- THE BARGE WILL THEN SAIL (UNDER TUG ASSISTANCE) TO THE TEMPORARY PIER ACROSS THE CHANNEL. THE BARGE WILL AGAIN BE MOORED WITH ITS SPUD PILES AND ITS RAMP LOWERED ON TO THE TEMPORARY PIER. CARGO WILL BE UNLOADED WITH A RO-RO OPERATION TO THE STAGING AREA.
- THE TEMPORARY PIER WILL ALSO BE USED TO LOAD EQUIPMENT ONTO OCEAN BARGES FOR TRANSPORTATION TO THE CONSTRUCTION SITE.
- 4. BARGES ARE OPERATED WITH TUGS AT ALL TIMES.

90% SUBMITTAL

MARK REVISION DESCRIPTION BY APP. DATE





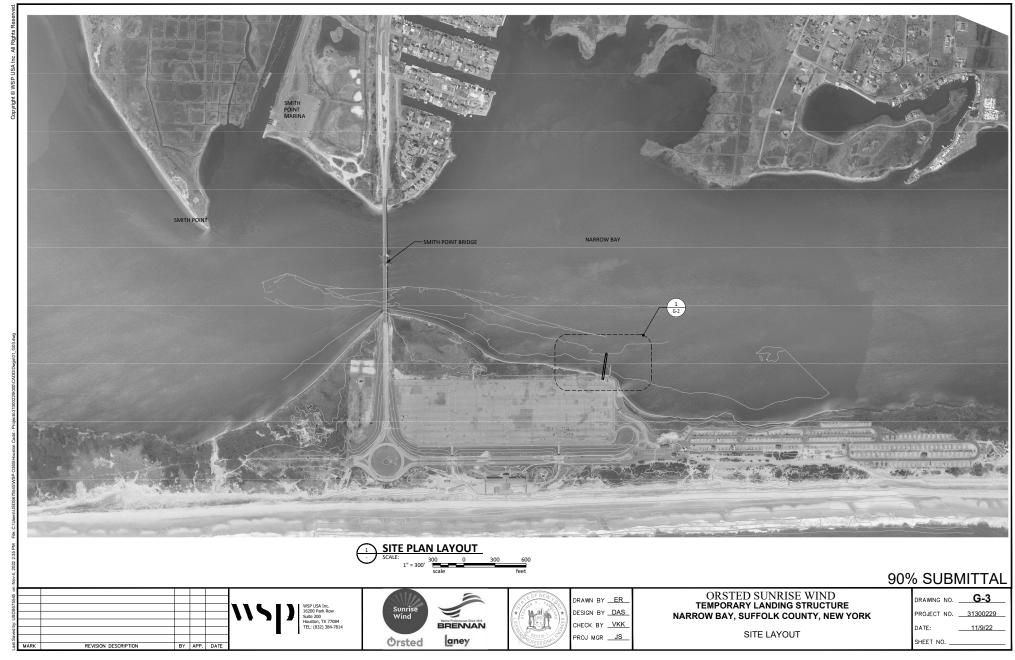


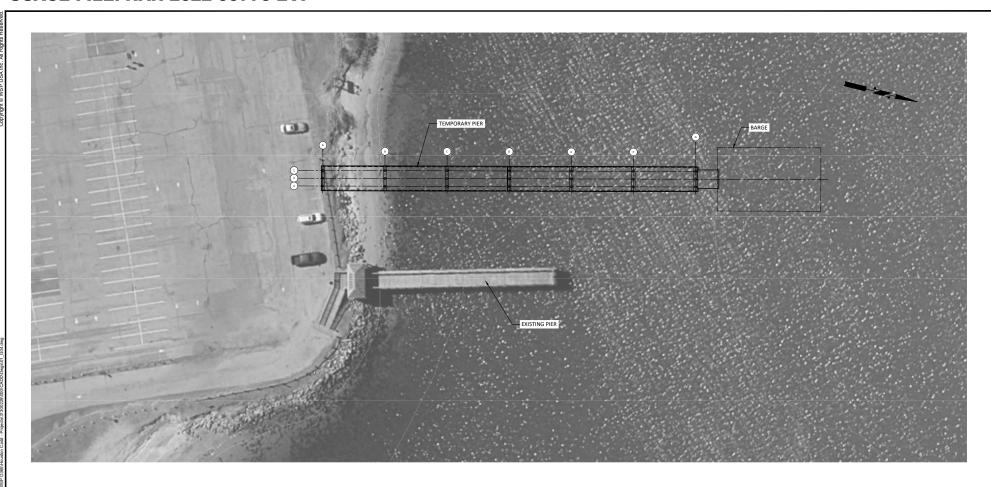
DRAWN BY <u>ER</u>
DESIGN BY <u>DAS</u>
CHECK BY <u>VKK</u>
PROJ MGR <u>JS</u>

ORSTED SUNRISE WIND TEMPORARY LANDING STRUCTURE NARROW BAY, SUFFOLK COUNTY, NEW YORK

GENERAL NOTES

DRAWING NO. G-2
PROJECT NO. 31300229
DATE: 11/9/22
SHEET NO. ____







90% SUBMITTAL

v						
ş						
3						WSP USA Inc. 16200 Park Row
3						- Suite 200
						Houston, TX 77084 TEL: (832) 384-7814
3						TEL: (832) 384-7814
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á	MARK	REVISION DESCRIPTION	BY	APP.	DATE	



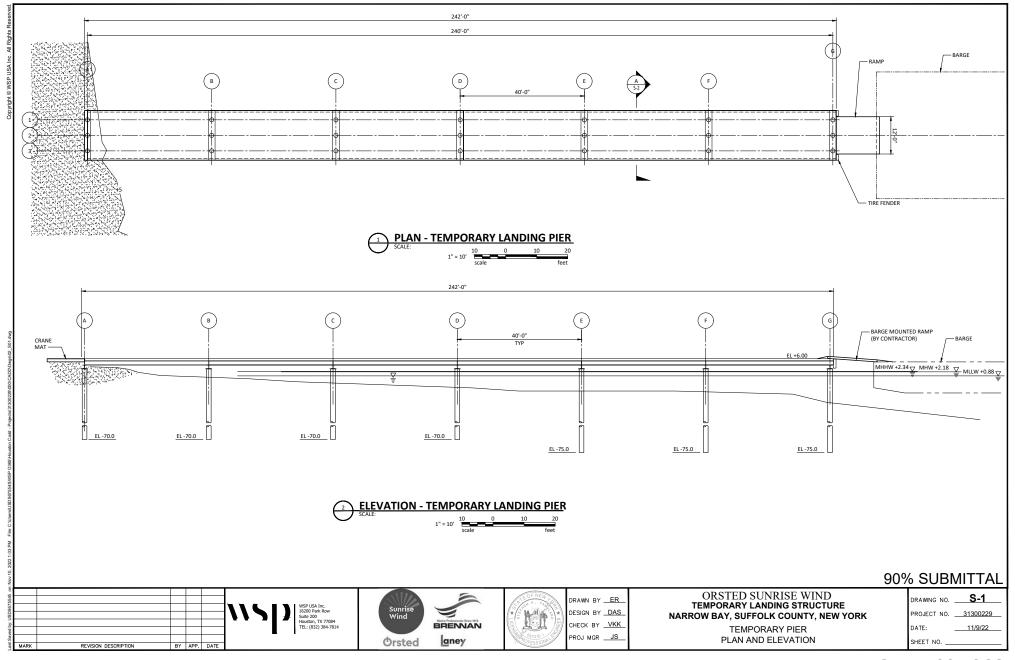


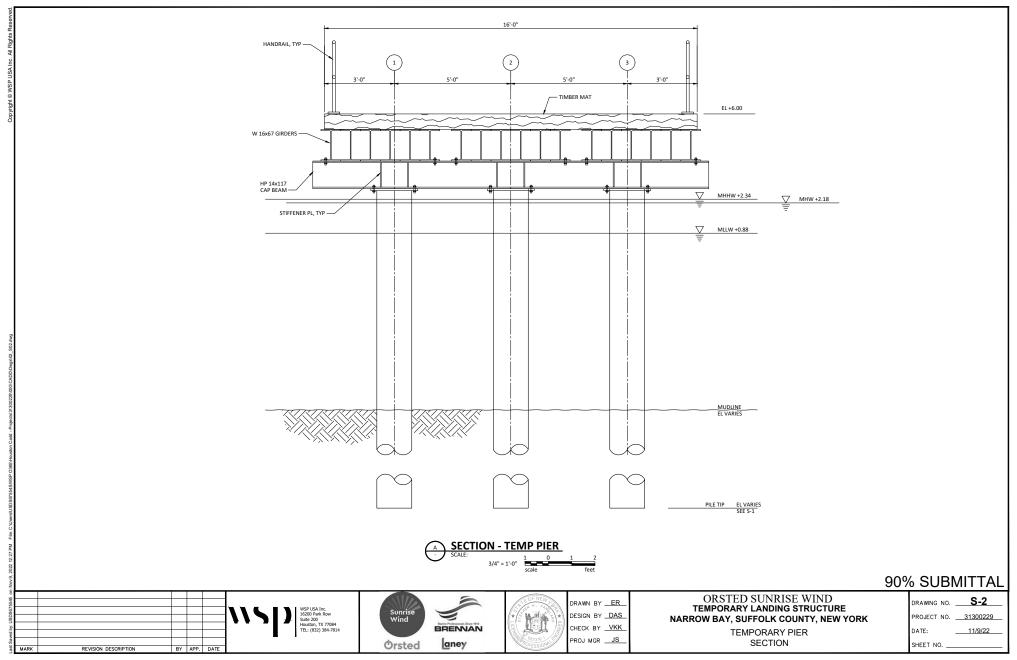
DRAWN BY ER	
DESIGN BY DAS	-
CHECK BY VKK	.
PROJ MGR <u>JS</u>	-

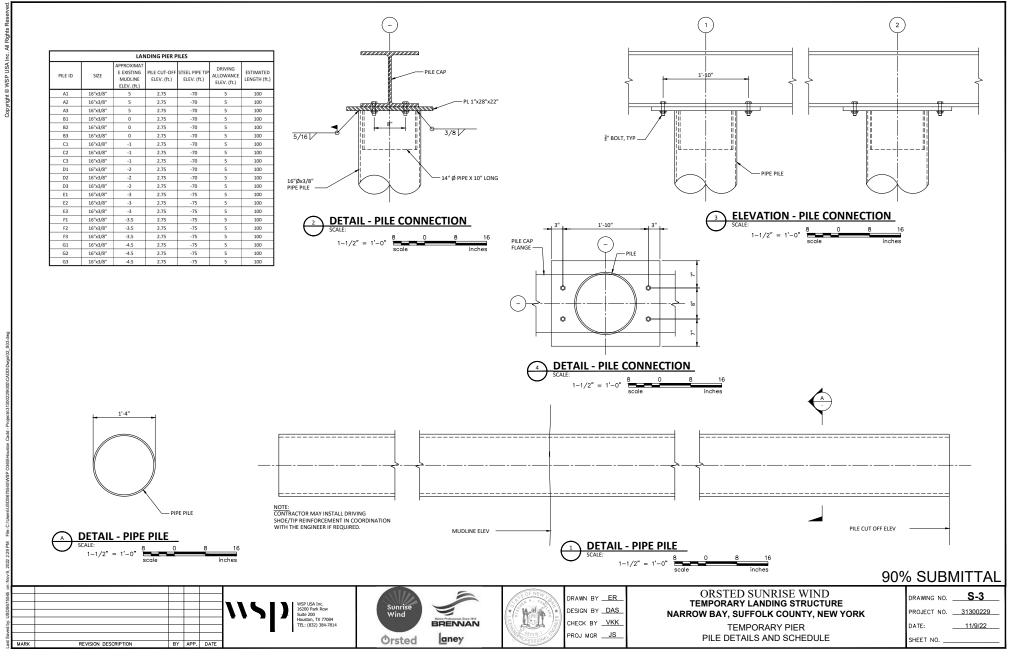
ORSTED SUNRISE WIND TEMPORARY LANDING STRUCTURE NARROW BAY, SUFFOLK COUNTY, NEW YORK

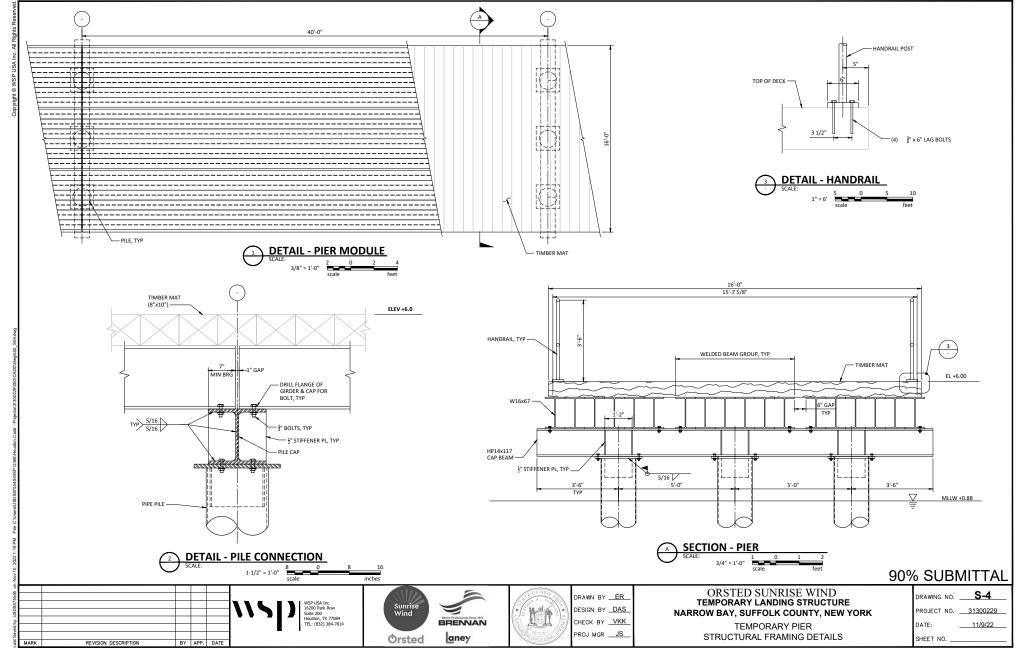
SITE PLAN AND TYPICAL MOORING ARRANGEMENT

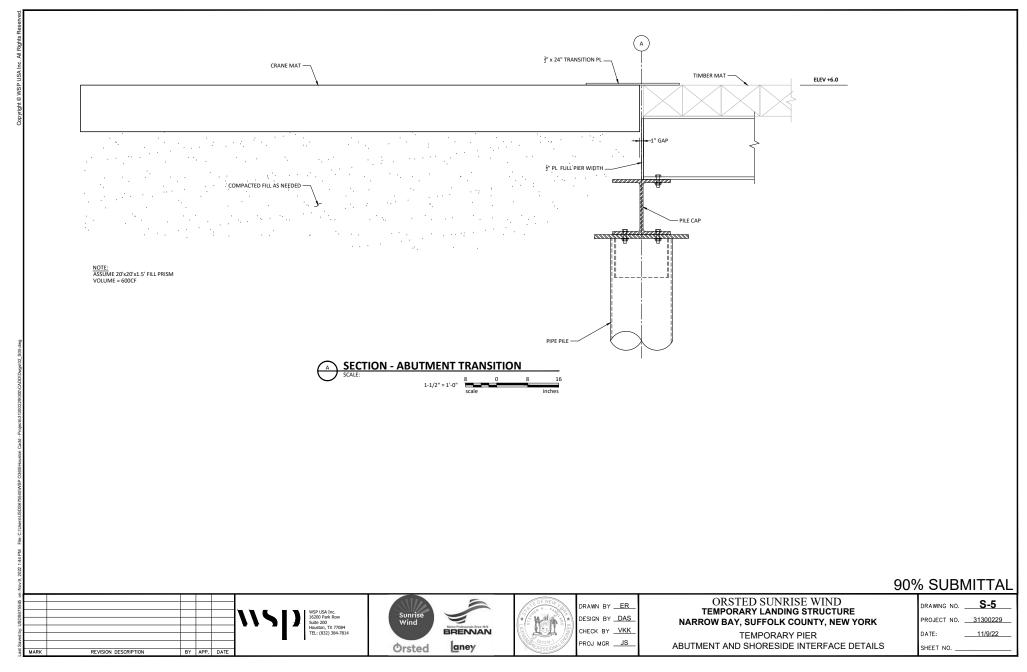
DRAWING NO.	G-4
PROJECT NO.	31300229
DATE:	11/9/22
SHEET NO	

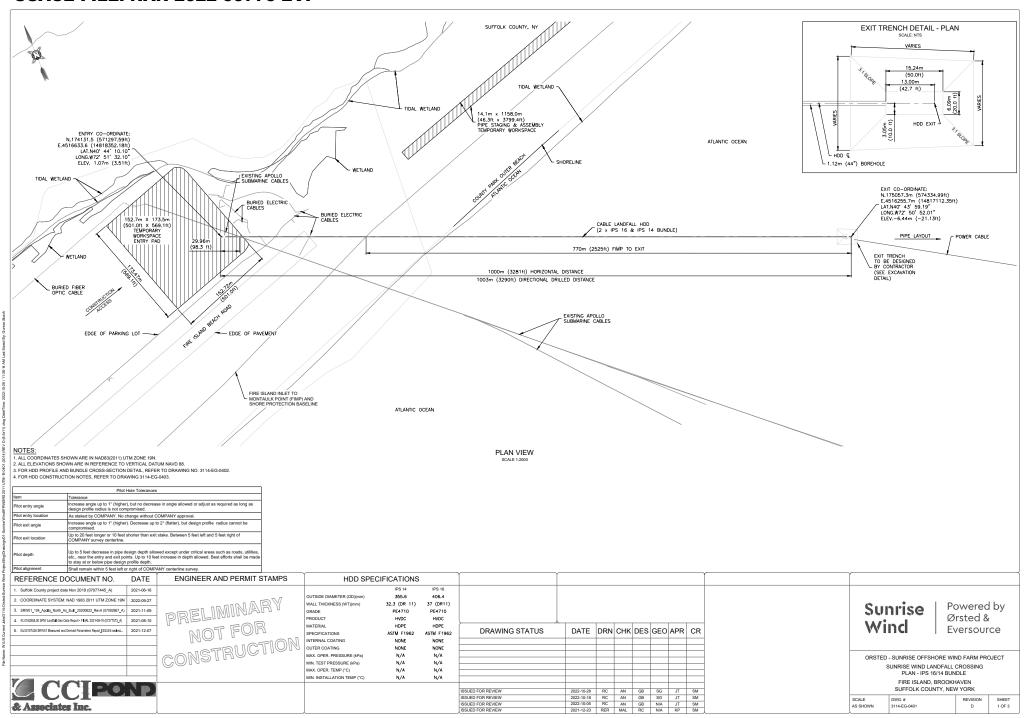


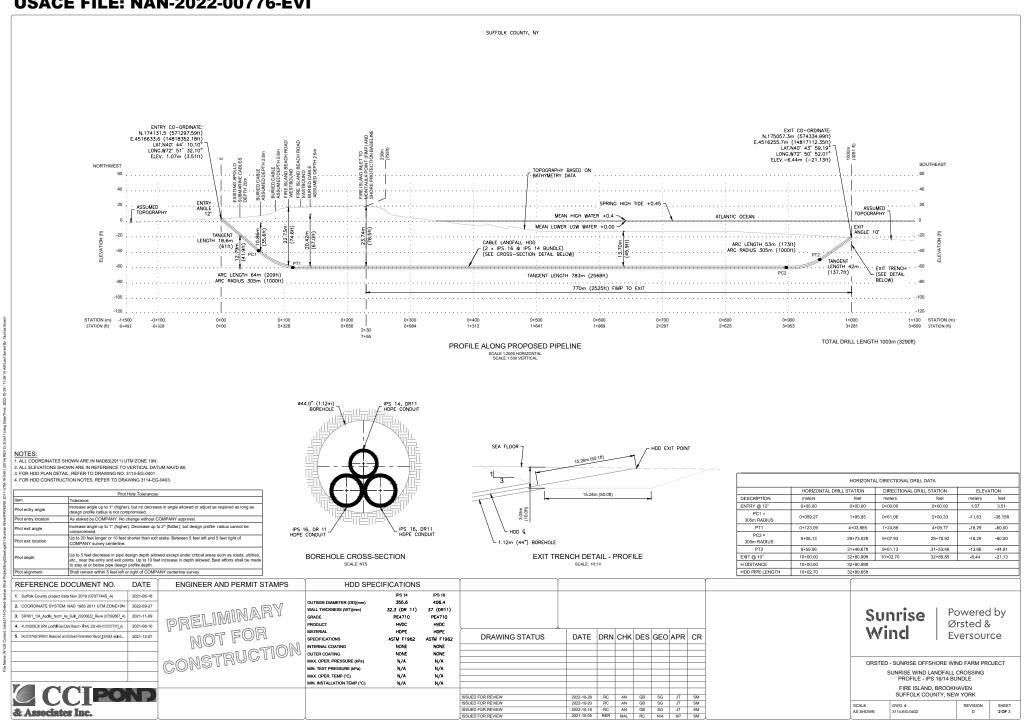












- NOTES

 1. All dimensions are in meters unless otherwise specified. All dimensions are to the centerline of borehole unless otherwise specified.

 2. All drill poth lengths are rounded to the nearest foot and angles are rounded to the nearest degree, unless otherwise specified.

 3. This drowing is bosed on information provided from various sources. Consulting Company does not take responsibility for the accuracy of information provided by others.

 4. The crassing shall be constructed in accordance with ASTM F1962 and Company Construction Specifications.

CONSTRUCTION

- Assumed final borehole size is 44"

- CONSTRUCTION

 1. Assumed find borehole size is 44'.

 2. The Controctor shall submit a Drilling Execution Plan for Company approval (prior to start of drilling operations) meeting the minimum requirements of the Controct Documents. Any deviation from the Execution Plan shall only be allowed the Controct Documents. Any deviation from the Execution Plan shall only be allowed the Controct property of the Controct property
- The pilot hole shall be drilled along the design drill path with the designated design radius of curvature shown in the drowing. The pilot hole shall be within the designated tolerances shown in the HDD profile drawing.
- The minimum radius for this crossing is 305m (1,000ft).
 This engineered design is based on the following minimum equipment requirements that the Contractor shall have onsite:

 - Chilling Equipment:

 Drilling Rig with a minimum pull force of 660,000 lbs;

 If using a forward reaming methodology, a device shall be supplied to provide tension on the drilling string on exit side (excovator, winch or second drill
- Drill Pipe 6 5/8" (inspected as per the HDD specification);
 Drill Bit 12 1/4" in diameter or larger (provide details, condition, and
- Drill Bitl 12 1/4 in diameter or larger (provide details, condition, and supplier):
 Nud Mator or larger capable of running within its specified maximum load range (provide details, condition, and supplier);
 Annular Pressure Tool (0 to 510 psi range);
- · Reamers designed for the formation (provide manufacturer's operating specifications, condition, and supplier);

- specifications, condition, and supplier).

 Magnetic and/or grosscopic steering system;

 Cosing (specifications and details to be provided for approval).

 b)Drilling Fluid Recycling Capiament:

 Pump Capacity (Operable Rate 530 gpm);

 Centrillage (Desponder / Desilter (Minimum Capacity of 400 gpm per minute).

 Centrillage (Desponder / Desilter (Minimum Capacity of 400 gpm per minute).

 Chins is a minimum list of equipment and should not be considered a directive on how to complete the work. The Contractor is responsible for the execution of the work under its Approved Execution Plan and shall supply oil necessary of the work under its Approved Execution Plan and shall supply oil necessary usually apply to the considered and serviced.

 12. Drilling Fluid is assumed to have a maximum density of 9.6 lbs/gallon and 1.0% sand content:

 13. HDPE conduits shall be prepared on land and floated to HDD exit location for publication.

- publick.

 4. HDPE conduits shall be filled with water in preparation for pullback. Installation of conduits requires all 3 HDPE conduits to be fully ballasted.

 5. Contractor shall evoluted boerhole ream size and may provide alternative proposed ream size for review and approval.

 6. Contractor shall evoluted design radius in relation to proposed ream size and downhole equipment, and may provide alternative proposed drilipath design radii for review and approval.

ENVIRONMENTAL

- 17. Emergency response spill kits must be on-site and available for use for the duration of the project.
- duration of the project.

 18. Contractor's proposed drilling fluid composition, including all expected additives, shall be reviewed and approved by the Owner's representative prior to
- Constructions.

 19. The watercourse must be monitored for a potential release of drilling fluid and to assess the immediate effects of the works on the aquatic environment in accordance with applicable Federal and State regulations.

- GEUTEUMNICAL

 20. A geotechnical series of the series of t

REFERENCE DOCUMENT NO.	DATE	
Suffolk County project data Nov 2019 (07077445_A)	2021-06-16	
2. COORDINATE SYSTEM: NAD 1983 2011 UTM ZONE 19N	2022-09-27	
3. SRW01_104_Apollo_North_As_Built_20200622_RevA (07092867_A)	2021-11-09	
4. 41.0162898.00 SRW Landfel Geo Data Report - FINAL 2021-08-10 (07277573_A)	2021-08-10	1
5. 04.00157428 SRW01 Measured and Derived Parameters Report_ISSUE4 sealed	2021-12-07	'
		6
		16

OUTSIDE DIAMETER (OD)(mm) CONSTRUCTION

ENGINEER AND PERMIT STAMPS

32.3 (DR 11) WALL THICKNESS (WT)(mm) 37 (DR11) PE4710 PE4710 PRODUCT HVDC HVDC MATERIAL HDPE HDPE SPECIFICATIONS INTERNAL COATING NONE OUTER COATING NONE NONE MAX. OPER. PRESSURE (kPa) N/A N/A MIN. TEST PRESSURE (kPa) N/A MAX OPER TEMP (°C) N/A N/A MIN. INSTALLATION TEMP (°C) N/A N/A

HDD SPECIFICATIONS

355.6

406.4

DRAWING STATUS DATE DRN CHK DES GEO APR CR 2022-10-18 RC AN GB 2022-10-05 RC AN GB N/A

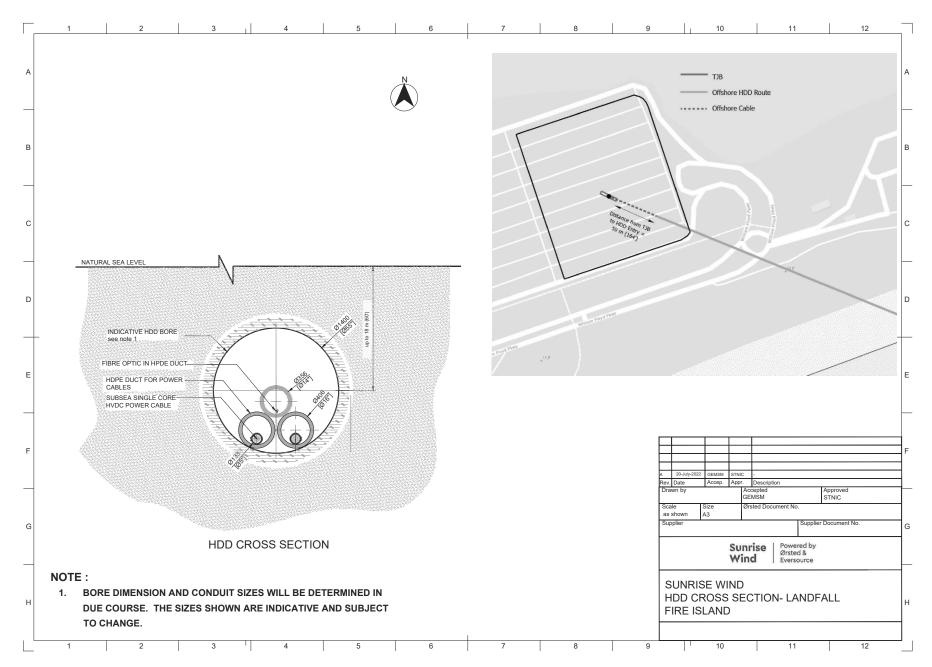
Sunrise Wind

Powered by Ørsted & Eversource

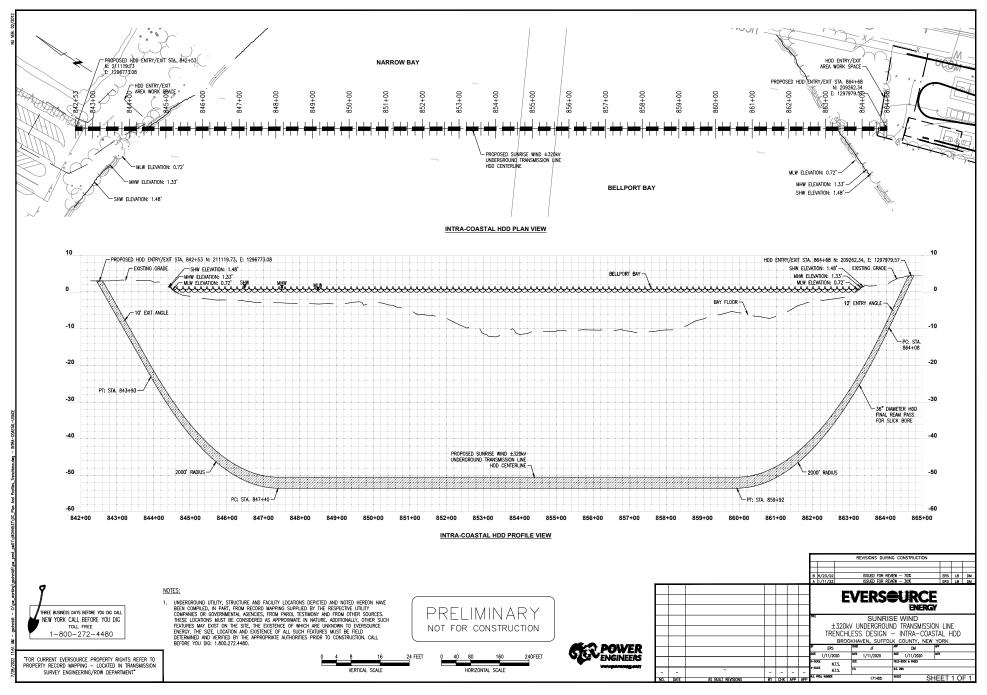
ORSTED - SUNRISE OFFSHORE WIND FARM PROJECT SUNRISE WIND LANDFALL CROSSING CONSTRUCTION NOTES IPS 16/14 BUNDLE FIRE ISLAND, BROOKHAVEN SLIFFOLK COLINTY NEW YORK

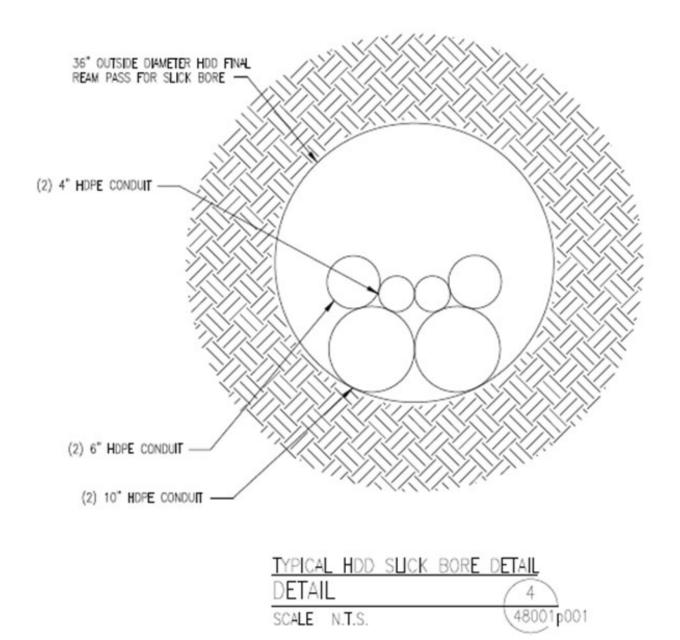
SCALE

REVISION



Sheet 68 of 83





Sheet 70 of 83

