

GENERAL

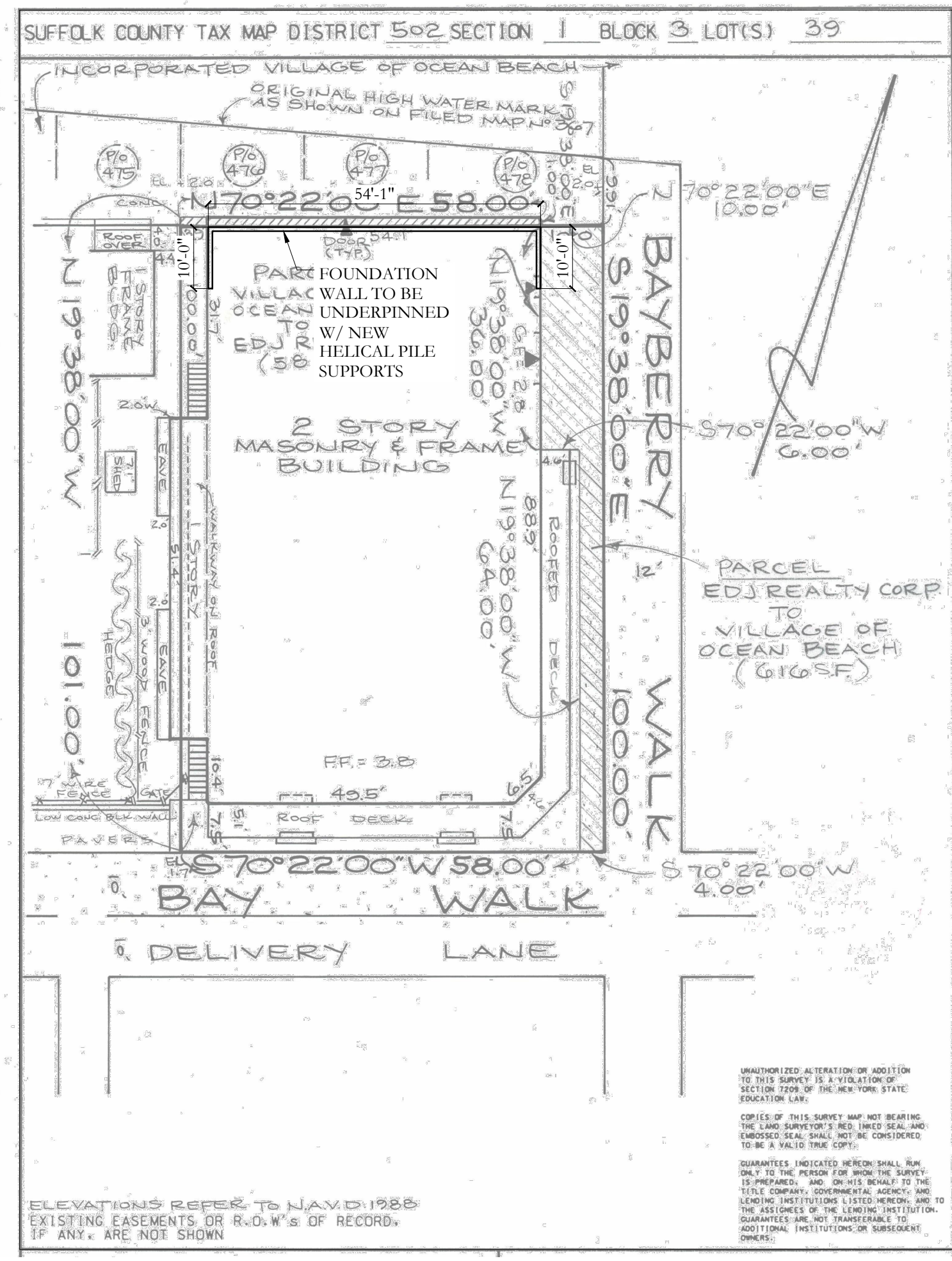
- NEWPORT ENGINEERING IS SOLELY CONTRACTED FOR THE HELICAL PILE DESIGN.
- NEWPORT ENGINEERING IS NOT RESPONSIBLE FOR CONTRACTOR MEANS AND METHODS.
- CONTRACTOR IS TO ABIDE BY ALL APPLICABLE LOCAL, STATE AND FEDERAL LAWS OF THE UNITED STATES OF AMERICA. CONTRACTOR IS TO BE AWARE OF, ABIDE BY AND BE HELD RESPONSIBLE FOR ALL TERMS AND CONDITIONS OF PERMIT AUTHORIZATIONS APPLICABLE TO THIS PROJECT WHICH WERE OBTAINED BY THE OWNER IN PREPARATION OF THE CONTRACT. NOTIFICATIONS REQUIRED TO THE APPLICABLE AGENCIES AND COMPLIANCE WITH ALL PERMIT AUTHORIZATIONS ARE DIRECTLY THE RESPONSIBILITY OF THE CONTRACTOR TO ABIDE BY AT NO ADDITIONAL COST TO THE ENGINEER.
- THE CONTRACTOR SHALL ADEQUATELY BRACE, SHORE, AND SUPPORT THE STRUCTURE DURING THE ENTIRE CONSTRUCTION PERIOD.

TECHNICAL NOTES:

- CONTRACTOR SHALL INJECT GROUT AS NEEDED AFTER ANGLE IRON AND BRACKETS HAVE BEEN INSTALLED TO FILL ALL GAPS IN BETWEEN.
- CONTRACTOR SHALL USE AP CEMENT GEL PATCH 7 TO FILL ALL VOIDS IN THE EXISTING FOOTING. CONTRACTOR MAY UTILIZE THIS PRODUCT TO REPAIR ANY DISLODGED CONCRETE AREA IN THE FOOTING. SEE MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS PRIOR TO USE.
- CONTRACTOR SHALL PLACE THE ENDS OF THE ANGLE IRON L8x6x4 ON THE UNDERPINNING BRACKET TO ENSURE PROPER SUPPORTS.

HELICAL PILE SPECIFICATIONS

- ALL PILES SHALL BE PATENTED HELICAL PILES AND APPURTENANCE AS FURNISHED BY A LICENSED HELICAL PILE DISTRIBUTOR. ALL HELICAL PILES ARE TO BE INSTALLED BY A FACTORY CERTIFIED INSTALLER, OTHERWISE A CERTIFIED TECHNICIAN FROM THE PILE DISTRIBUTOR MUST BE ON SITE AT ALL TIMES TO WITNESS PILE INSTALLATION.
- HELICAL PILES, EXTENSIONS AND APPURTENANCES SHALL BE HOT-DIPPED GALVANIZED STEEL IN ACCORDANCE WITH ASTM A153.
- ALL PILE INSTALLATION OPERATIONS SHALL BE SUPERVISED BY A LICENSED PROFESSIONAL ENGINEER CURRENTLY REGISTERED IN THE STATE OF NY. THE INSPECTOR SHALL KEEP A COMPLETE RECORD OF THE PILE INSTALLATION OPERATION.
- ALL PILES SHALL BE 3" DIAMETER MACLEAN CIVIL PRODUCTS PIPE PILE OR APPROVED EQUAL AND INSTALLED TO MEET THE MINIMUM DEPTH OF 27-FT AND MINIMUM TORQUE OF 5787 FT-LBS WITH PROPER HELIX NUMBERS AND SIZES AS SHOWN ON THE PILE SPECIFICATION. ACTUAL PILE LENGTH IS DETERMINED BASED ON ACHIEVING THE REQUIRED TORQUE OF 5787 FT-LBS FOR ALL PILES. PILES ARE SUBJECT TO THE FOLLOWING PROVISIONS:
 - IF THE MINIMUM TORQUE REQUIREMENT HAS NOT BEEN SATISFIED AT THE MINIMUM DEPTH LEVEL, THE CONTRACTOR SHALL HAVE THE FOLLOWING OPTIONS:
 - INSTALL THE PILE DEEPER USING ADDITIONAL EXTENSIONS UNTIL THE SPECIFIED TORQUE LEVEL IS OBTAINED.
 - REMOVE THE EXISTING PILE AND INSTALL A PILE WITH LARGER AND/OR MORE HELICES. THE REVISED PILE SHALL BE INSTALLED BEYOND THE TERMINATION DEPTH OF THE ORIGINAL PILE, AS DIRECTED BY THE ENGINEER.
 - ADD ADDITIONAL PILES AS RECOMMENDED BY ENGINEER.
- HELICAL PILES SHOULD BE INSTALLED AS SHOWN ON THE ENGINEER'S PLAN. ALL CHANGES IN PILE LOCATION MUST BE APPROVED BY THE ENGINEER.
- IF UNDERGROUND OBSTRUCTIONS ARE ENCOUNTERED DURING INSTALLATIONS, THE CONTRACTOR SHALL HAVE THE OPTION OF REMOVING THE OBSTRUCTION IF POSSIBLE OR RELOCATING THE PILE WITH THE ENGINEER'S APPROVAL. THE LATTER OPTION MAY REQUIRE THE RELOCATION OF ADJACENT PILES.
- THE HELICAL PILE SHALL BE CONNECTED TO THE STRUCTURE USING A PTS APPROVED STEEL BRACKET OR SLAB-SUPPORTING CHANNEL AS THE CASE MAY BE. AS SHOWN ON THE ENGINEER'S PLAN. THESE CONNECTION DEVICES SHALL BE CAPABLE OF SAFELY TRANSFERRING THE STRUCTURAL LOADS TO THE HELICAL PILE.
- WRITTEN INSTALLATION RECORDS SHALL BE OBTAINED FOR EACH HELICAL PILE. THESE RECORDS SHALL INCLUDE, BUT ARE NOT LIMITED TO THE FOLLOWING:
 - PROJECT NAME AND/OR LOCATION.
 - NAME OF CONTRACTOR'S FORMAN OR REPRESENTATIVE WHO WITNESSED THE INSTALLATION.
 - DATE AND TIME OF INSTALLATION.
 - LOCATION AND REFERENCE NUMBER OF EACH PILE.
 - DESCRIPTION OF LEAD SECTION AND EXTENSIONS INSTALLED.
 - OVERALL DEPTH OF INSTALLATION REFERENCED FROM BOTTOM TO GRADE BEAM OR FOOTING.
 - TORQUE READING FOR THE LAST THREE FEET OF INSTALLATION IF PRACTICAL.
 - ANY OTHER RELEVANT INFORMATION RELATING TO THE INSTALLATION.



AREA OF FOUNDATION REPAIR WORK

SCALE: NTS
INFORMATION ON SITE SURVEY PROVIDED BY JOHN C. MAYER, L.S.

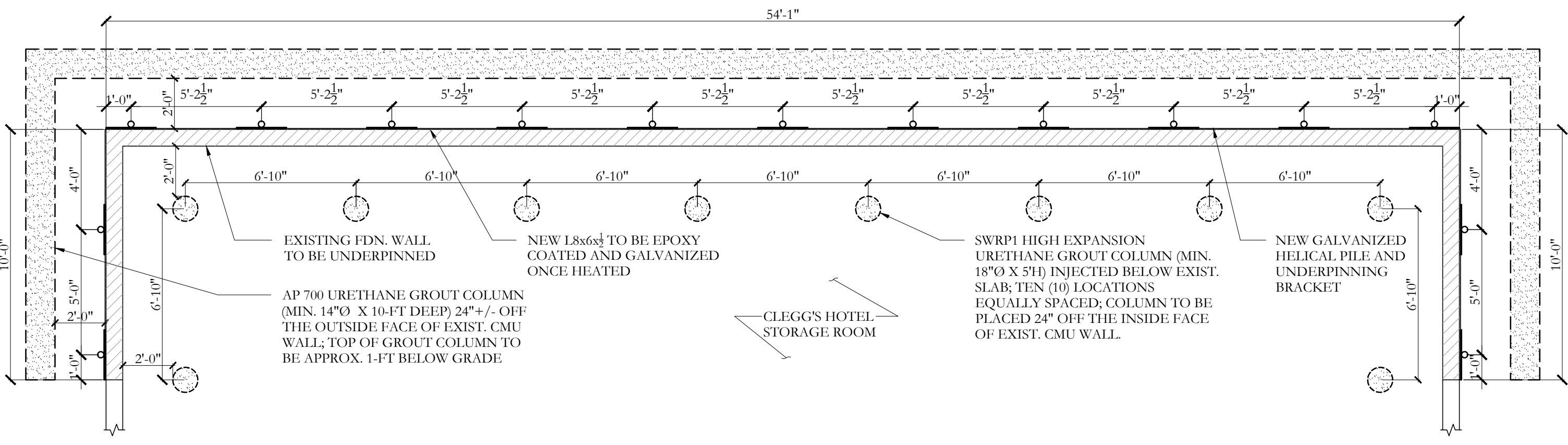
Preliminary Helical Pile Capacity Calculations

Project Name: Cleggs Hotel Foundation Underpinning
 Project Number: 23-999
 Project Type: Repair
 Project Address: 478 Bayberry Walk, Ocean Beach, New York, 11770
 Company Name: Newport Engineering
 Prepared By: Rubina Haque
 Date: Monday, December 18, 2023

SOIL BORING DATA					REQUIRED LOADS (Allowable)	
Boring ID:	Soil Type	Depth to Groundwater 1.9 (ft)	Unit Weight (pcf)	Cohesion (psf)	Friction Angle (deg)	Required Compression Load:
B-3						26.04 kips
						Required Tension Load:
						0 kips
HELVICAL PILE CONFIGURATION						
3" O.D. Pipe (0.27" Wall Thickness) installed with a batter angle of 0 degrees to a depth of 27 feet followed by 2.875" O.D. Pipe (0.203" Wall Thickness) beginning at a depth of 20 feet. The pile is affixed to the structure using an underpinning bracket.						
Depth (ft)	Soil Type	Helical Pile Diagram	Unit Weight (pcf)	Cohesion (psf)	Friction Angle (deg)	
8	Sand		97.47	0	29.79	
9	Sand		91.46	0	27.62	
10	Sand		91.46	0	27.62	
11	Sand		93.21	0	28.24	
12	Sand		93.21	0	28.24	
13	Sand		102.35	0	31.65	
14	Sand		102.35	0	31.65	
15	Sand		102.35	0	31.65	
16	Sand		102.35	0	31.65	
17	Sand		102.35	0	31.65	
18	Sand		112.78	0	35.99	
19	Sand		112.78	0	35.99	
20	Sand		112.78	0	35.99	
21	Sand		112.78	0	35.99	
22	Sand		112.78	0	35.99	
23	Sand		116.85	0	37.85	
24	Sand		116.85	0	37.85	
25	Sand		116.85	0	37.85	
26	Sand		116.85	0	37.85	
27	Sand		116.85	0	37.85	
28	Sand		120.05	0	39.4	
29	Sand		120.05	0	39.4	
30	Sand		120.05	0	39.4	
31	Sand		120.05	0	39.4	
32	Sand		120.05	0	39.4	
33	Sand		120.67	0	39.71	
34	Sand		120.67	0	39.71	
35	Sand		120.67	0	39.71	
36	Sand		120.67	0	39.71	
37	Sand		120.67	0	39.71	
38	Sand		122.49	0	40.64	
39	Sand		122.49	0	40.64	
40	Sand		122.49	0	40.64	
41	Sand		122.49	0	40.64	
42	Sand		122.49	0	40.64	
43	Sand		135.26	0	48.39	
44	Sand		135.26	0	48.39	
SAFETY FACTORS APPLIED						
Compression: 2 Tension: 2						
Buckling: 2						
CALCULATION RESULTS						
Ultimate Geotechnical Bearing Capacity:						
54.31 kips > 52.08 kips PASS						
Ultimate Geotechnical Tension Capacity:						
47.84 kips > 0 kips PASS						
Mechanical Compression Capacity of Shaft:						
70 kips > 52.08 kips PASS						
Mechanical Tension Capacity of Shaft:						
70 kips > 0 kips PASS						
Buckling Strength:						
70 kips > 52.08 kips PASS						
Torque Capacity:						
7500 ft-lbs > 5787 ft-lbs PASS						
Torque Capacity Based on Kt Factor = 9						

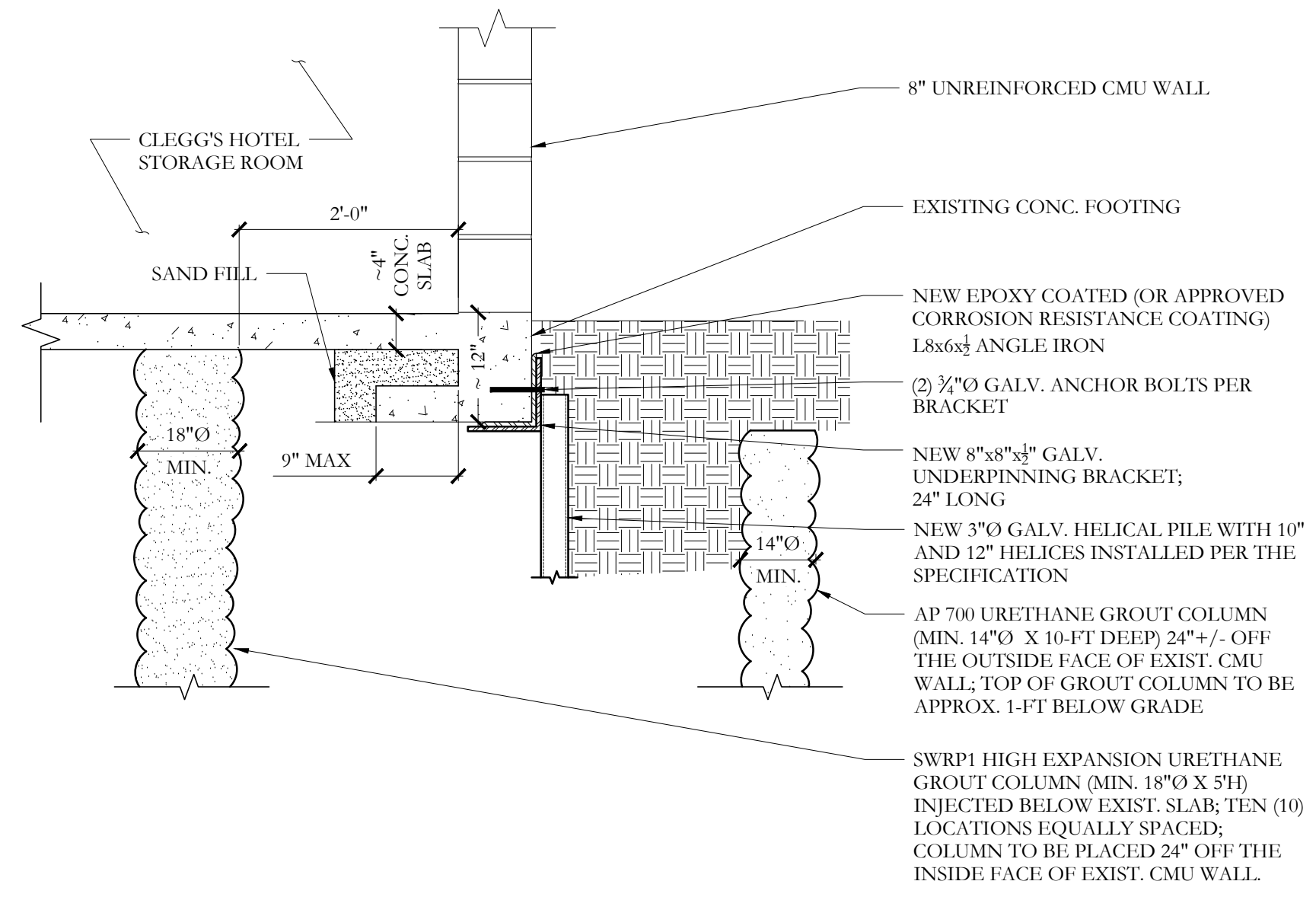
HELICAL PILE SPECIFICATION

MINIMUM INSTALLATION TORQUE: 5787 FT-LBS



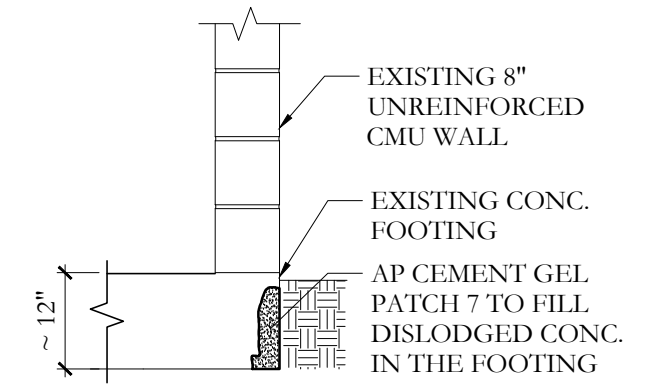
HELICAL PILE AND UNDERPINNING BRACKET PLAN

SCALE: 1/4" = 1'-0"



SECTION DETAIL @ PILE LOCATION

SCALE: 3/4" = 1'-0"



EXIST. FTG. REPAIR DETAIL

SCALE: 1/2" = 1'-0"



NEWPORT PROFESSIONAL ENGINEERING, PC
 1035 OYSTER BAY RD, SUITE E
 EAST NORWICH, N.Y. 11732
 (T) 516-922-2672 (F) 516-922-2686
 WWW.NEWPORTENGINEERINGPC.COM

DRAWING ALTERATION
 IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED ARCHITECT, PROFESSIONAL ENGINEER, OR LAND SURVEYOR TO ALTER ANY ITEM ON THIS DOCUMENT IN ANY WAY.
 ANY LICENSEE WHO ALTERS THIS DOCUMENT IS REQUIRED BY LAW TO AFFIX HIS OR HER SEAL AND THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE AND SPECIFIC DESCRIPTION OF THE ALTERATIONS.

No.	Remarks	Date
1	REVISED PER GBI COMMENTS	12/20/23

No. Remarks Date



ENGINEER SEAL
 NICHOLAS J. DESANTIS PE
 LICENSED PROFESSIONAL ENGINEER

OWNER:
CLEGG'S HOTEL

PROJECT LOCATION:
 478 BAYBERRY WALK
 OCEAN BEACH, NY 11770

D-S-B-L: 502-I-3-39
 PROJECT:
EXISTING FOUNDATION UNDERPINNING PROJECT

DRAWING TITLE:
FOUNDATION UNDERPINNING PLAN AND DETAILS

DRAWN BY: RH
 CHECKED BY: ND
 PROJECT NO.: 23-999 SCALE: AS NOTED
 DATE: 12.11.2023 SHEET NO. 1 of 1
S.100.00
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