

NOTES

- SOIL DESCRIPTIONS ARE BY VISUAL EXAMINATION OF SOIL SAMPLES RECOVERED DURING DRILLING OPERATIONS.
- SOIL DESCRIPTIONS ARE IN ACCORD WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM.
- GROUND WATER TABLE WAS MEASURED INSIDE THE DRILL CASING AT THE COMPLETION OF EACH BOREHOLE.
- GROUND WATER TABLE WHERE ENCOUNTERED AT THIS SITE IS UNDER TIDAL INFLUENCE.
- SOIL STRATIFICATIONS ARE ACCURATE TO WITHIN TWO FEET VERTICALLY.
- SOIL SAMPLES WERE OBTAINED USING A CENTRAL MINE EQUIPMENT (CME) AUTOMATIC TRIP HAMMER.
- BORINGS STAKED OUT AND ELEVATIONS BY OTHERS.

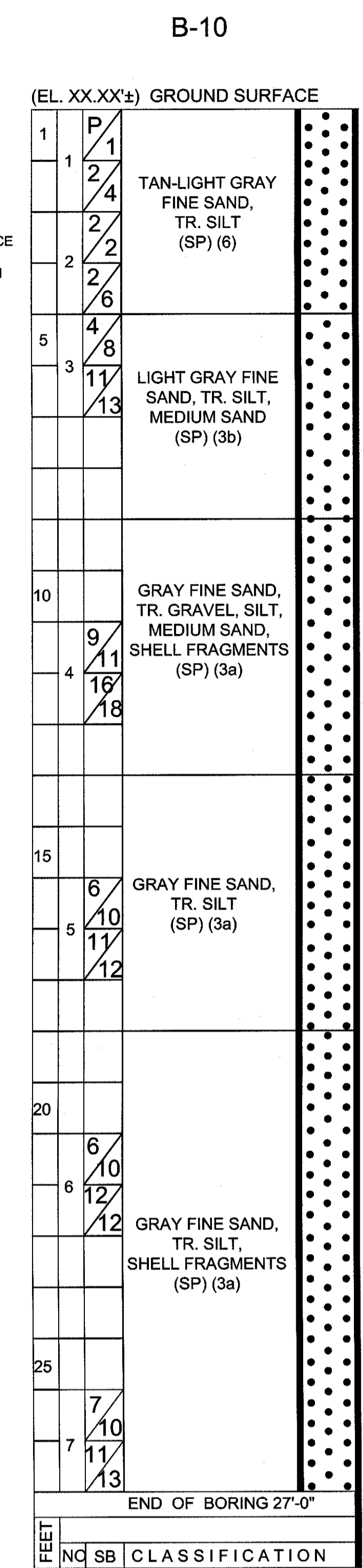
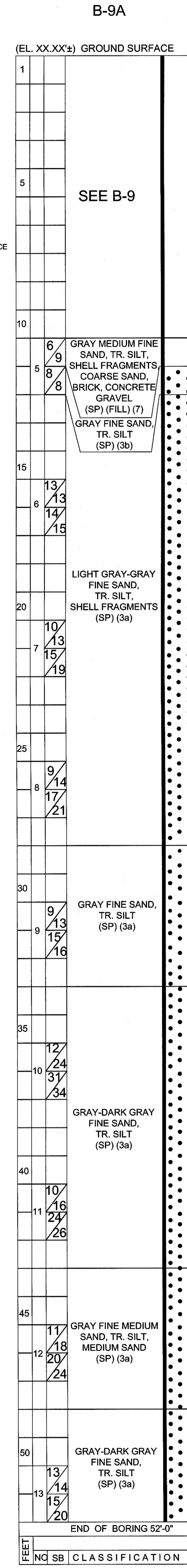
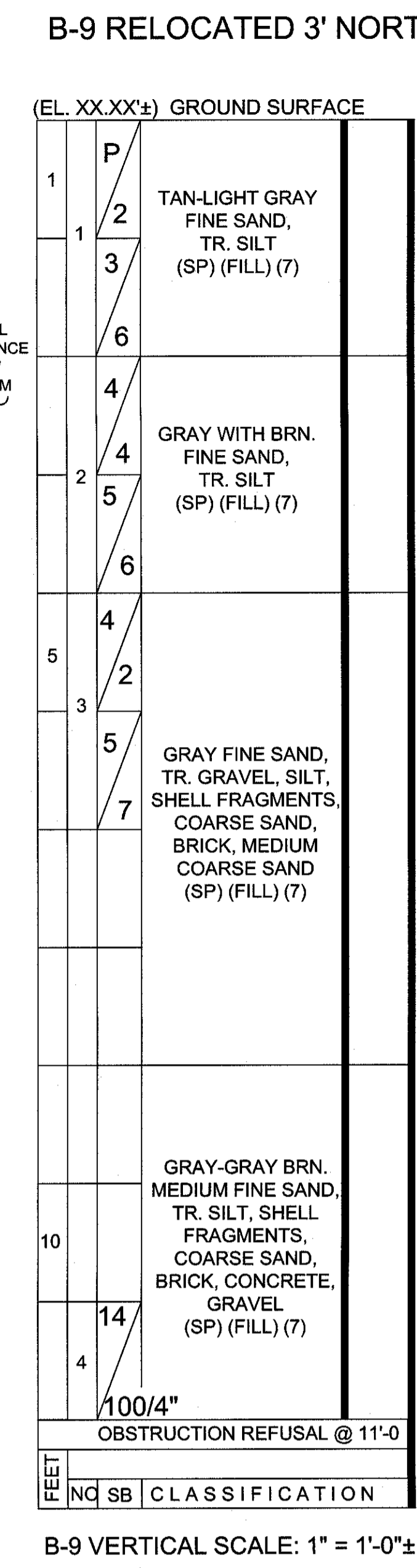
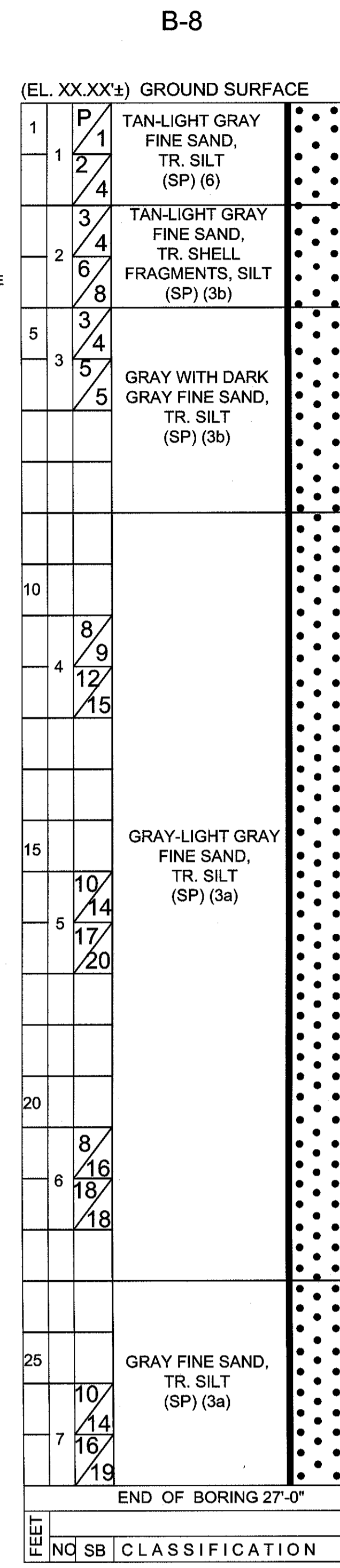
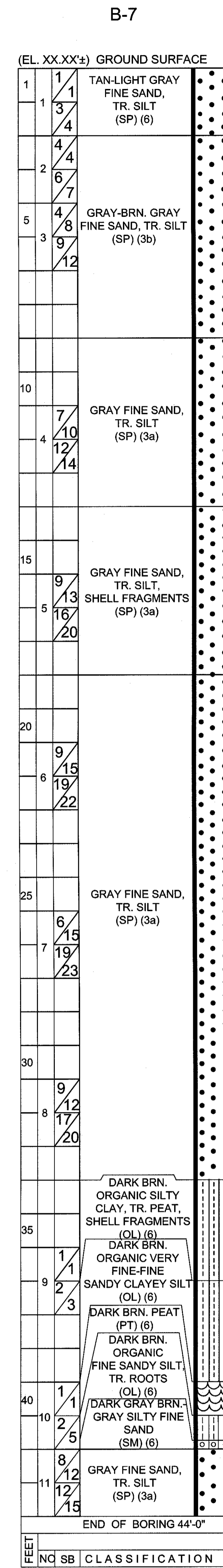
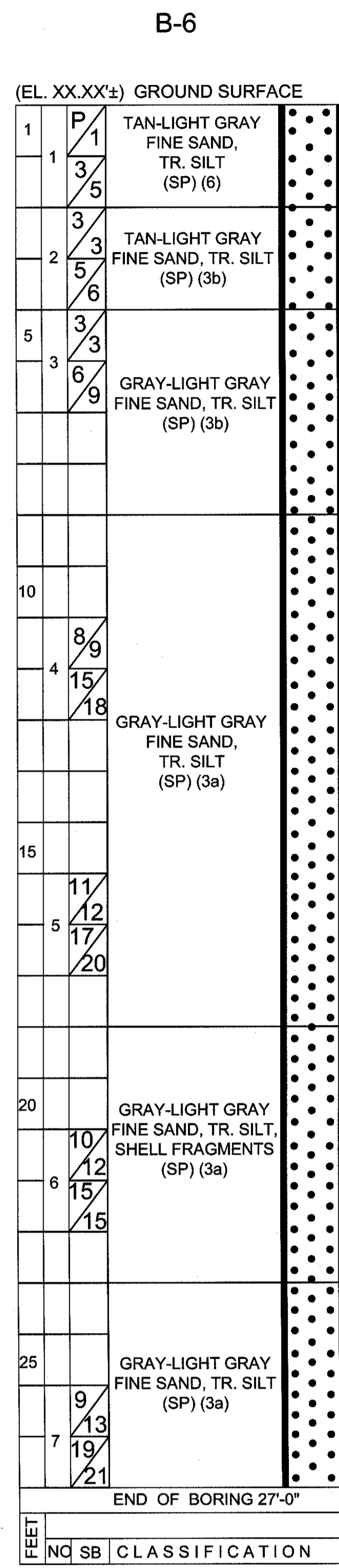
UNIFIED SOIL CLASSIFICATION	
SOIL GROUPS	TYPICAL NAMES AND SOIL SYMBOLS
1a THRU 1d	BED ROCK
GW	WELL GRADED GRAVELS, GRAVEL SAND MIXTURES, LITTLE OR NO FINES
GP	POORLY GRADED GRAVELS OR GRAVEL SAND MIXTURES, LITTLE OR NO FINES
GM	SILTY GRAVELS, GRAVEL - SAND - SILT MIXTURE
GC	CLAYEY GRAVELS, GRAVEL - SAND - CLAY MIXTURE
SW	WELL GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
SP	POORLY GRADED SANDS OR GRAVELLY SANDS, LITTLE OR NO FINES
SM	SILTY SANDS, SAND - SILT MIXTURES
SC	CLAYEY SANDS, SAND - CLAY MIXTURES
ML	INORGANIC SILTS, VERY FINE SANDS, CLAYEY SILTS, SLIGHT PLASTICITY
CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS SANDY CLAYS, SILTY CLAYS
OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY
MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SANDY OR SILTY SOILS, ELASTIC SILTS
CH	INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS
OH	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS
Pt	PEAT AND OTHER HIGHLY ORGANIC SOILS

ALLOWABLE SOIL BEARING PRESSURES, N.Y.C. BLDG. CODE TABLE 1804.1		
CLASS OF MATERIALS (Notes 1 and 3) *	MAXIMUM ALLOWABLE FOUNDATION PRESSURE (TSF)	MAXIMUM ALLOWABLE FOUNDATION PRESSURE (PSF)
	1. BEDROCK (NOTES 2 and 7) *	
1a HARD SOUND ROCK - GNEISS, DIABASE, SCHIST	60	5,746
1b MEDIUM HARD ROCK - MARBLE, SERPENTINE	40	3,930
1c INTERMEDIATE ROCK - SHALE, SANDSTONE	20	1,915
1d SOFT ROCK - WEATHERED ROCK	5	766
2. SANDY GRAVEL AND GRAVEL (GW, GP) (NOTES 3, 4, 6, and 9) *	10	958
2a DENSE	6	575
2b MEDIUM	3	287
3. GRANULAR SOILS (GC, GM, SW, SP, SM & SC) (NOTES 4, 5, 6, and 9) *	6	575
3a DENSE	3	287
3b MEDIUM	1.5	144
4. CLAYS (SC, CL, & CH) (NOTES 4, 6, 8, and 9) *	5	479
4a HARD	3	287
4b STIFF	2	192
4c MEDIUM	1.5	144
5. SILTS & SILTY SOILS (ML and MH) (NOTES 4, 6, and 9) *	3	287
5a DENSE	1.5	144
5b MEDIUM	1.5	144
6. ORGANIC SILTS, ORGANIC CLAYS, PEATS, SOFT CLAYS, LOOSE GRANULAR SOILS AND VARIED SILTS	SEE 1804.2.1 *	SEE 1804.2.1 *
7. CONTROLLED AND UNCONTROLLED FILLS	SEE 1804.2.2 OR 1804.2.3 *	SEE 1804.2.2 OR 1804.2.3 *

* REFER TO SECTION 1804.2 OR NOTES FOLLOWING TABLE 1804.1 IN N.Y.C. BUILDING CODE FOR ADDITIONAL INFORMATION

COMPACTION RELATED TO SPOON BLOWS/FOOT		STANDARD PENETRATION TEST-ASTM D 1586
SAND & SILT	CLAY	
LOOSE	LESS THAN 10	LESS THAN 4
MEDIUM	10 TO 30	4 TO 8
DENSE	GREATER THAN 30	GREATER THAN 8 TO 30

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SUBSURFACE INVESTIGATION	
LONG BEACH BOARD WALK	
NEW YORK AVENUE	
LONG BEACH, NEW YORK	
VERTICAL BORING SCALE: 1/2" = 1'-0" UNLESS NOTED OTHERWISE	DRAWING DATE: APRIL 19, 2013
DATES OF BORINGS: APRIL 16, 17 & 18, 2013	DRAWN BY: NAK
	CHECKED BY: CV
	REVISOR DATE:
	DRAWING NUMBER: 13L216.11
	SHEET 1 OF 3



UNIFIED SOIL CLASSIFICATION		
SOIL GROUPS	TYPICAL NAMES AND SOIL SYMBOLS	
1a THRU 1d	BEDROCK	
GW	WELL GRADED GRAVELS, GRAVEL SAND MIXTURES, LITTLE OR NO FINES	
GP	POORLY GRADED GRAVELS OR GRAVEL SAND MIXTURES, LITTLE OR NO FINES	
GM	SILTY GRAVELS, GRAVEL - SAND - SILT MIXTURE	
GC	CLAYEY GRAVELS, GRAVEL - SAND - CLAY MIXTURE	
SW	WELL GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES	
SP	POORLY GRADED SANDS OR GRAVELLY SANDS, LITTLE OR NO FINES	
SM	SILTY SANDS, SAND - SILT MIXTURES	
SC	CLAYEY SANDS, SAND - CLAY MIXTURES	
ML	INORGANIC SILTS, VERY FINE SANDS, CLAYEY SILTS, SLIGHT PLASTICITY	
CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS SANDY CLAYS, SILTY CLAYS	
OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY	
MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SANDY OR SILTY SILTS, ELASTIC SILTS	
CH	INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS	
OH	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS	
Pt	PEAT AND OTHER HIGHLY ORGANIC SOILS	

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	(TSF)	(KPa)
1. BEDROCK (NOTES 2 and 7) *		
1a HARD SOUND ROCK - GNEISS, DIABASE, SCHIST	60	5,746
1b MEDIUM HARD ROCK - MARBLE, SERPENTINE	40	3,830
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2. SANDY GRAVEL and GRAVEL (GW, GP) (NOTES 3, 4, 8, and 9) *		
2a DENSE	10	958
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4a HARD	5	479
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5. SILTS & SILTY SOILS (ML and MH) (NOTES 4, 8, and 9) *		
5a DENSE	3	287
5b MEDIUM	1.5	144
6. ORGANIC SILTS, ORGANIC CLAYS, PEATS, SOFT CLAYS, LOOSE GRANULAR SOILS AND WAVED SILTS	SEE 1804.2.1 *	SEE 1804.2.1 *
7. CONTROLLED AND UNCONTROLLED FILLS	SEE 1804.2.2 OR 1804.2.3 *	SEE 1804.2.2 OR 1804.2.3 *

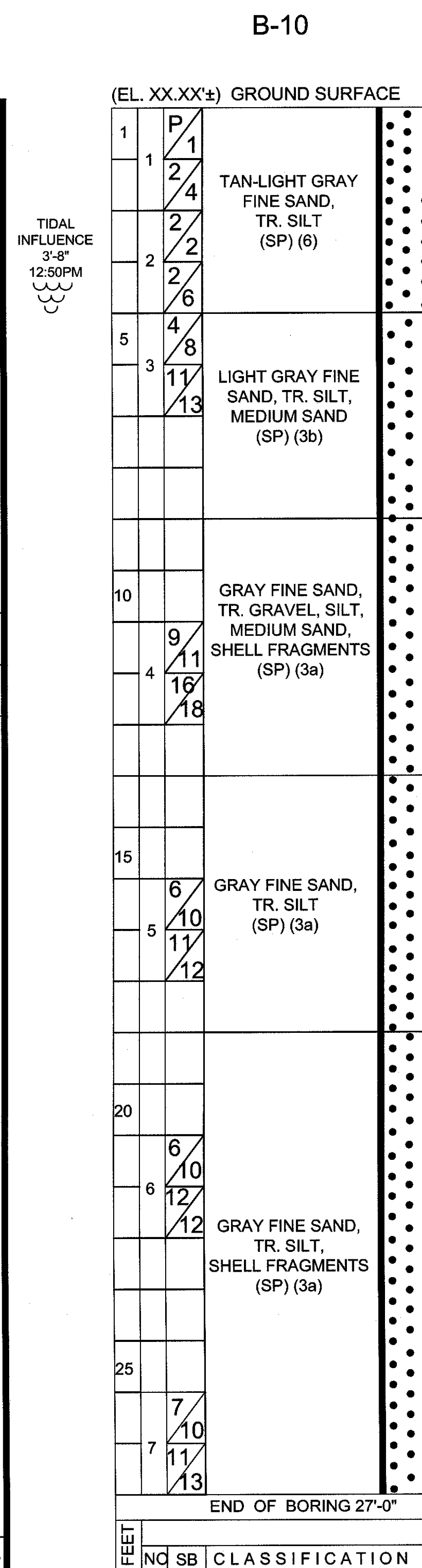
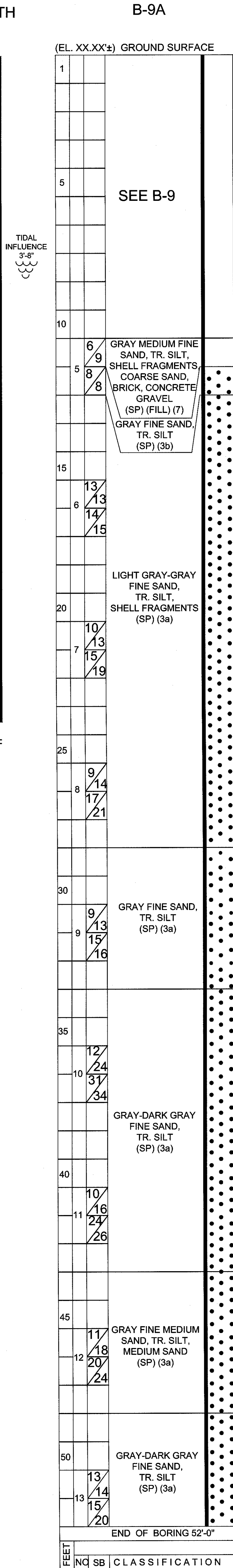
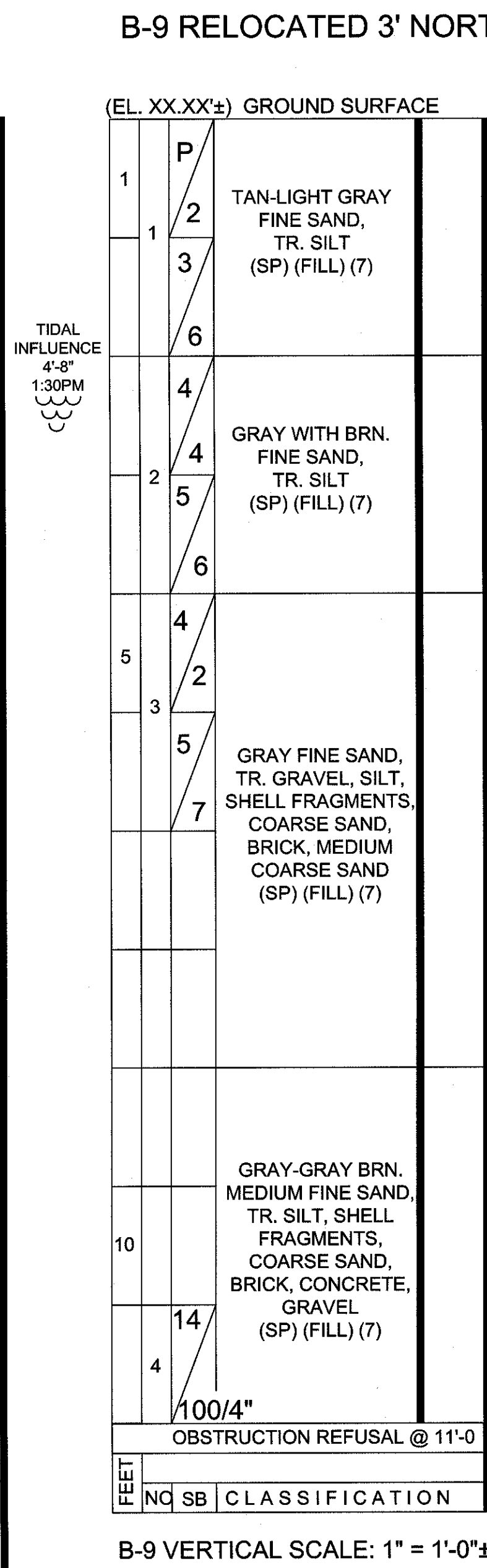
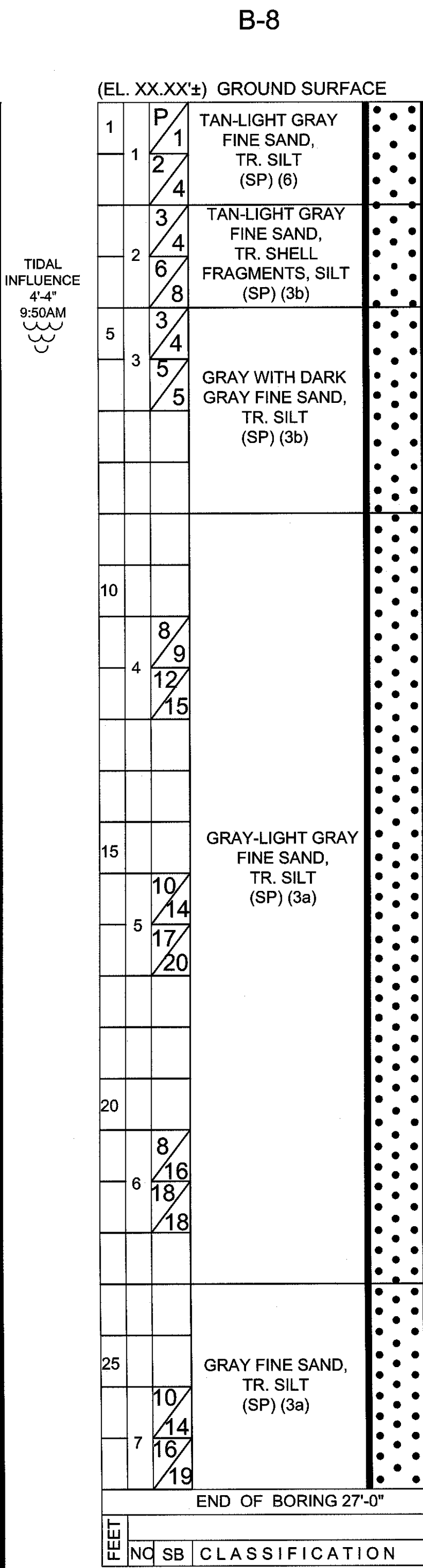
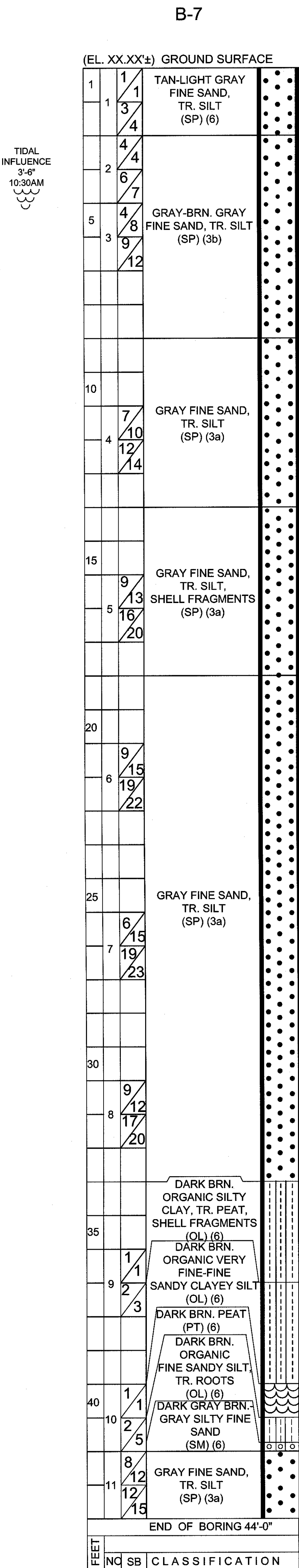
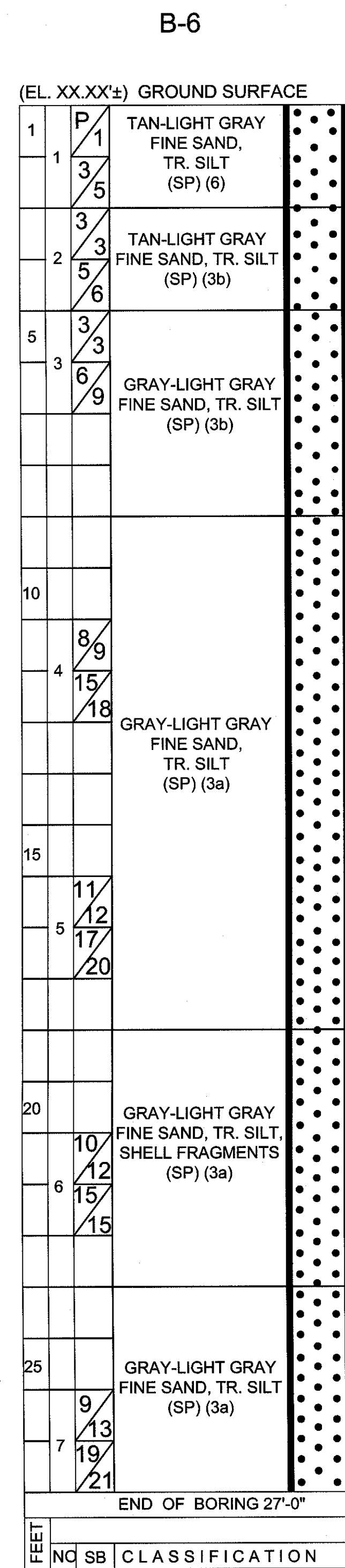
COMPACTION RELATED TO SPOON BLOWS/FOOT		STANDARD PENETRATION TEST-ASTM D 1586 (IF SPOON, 1400 HAMMER, 30" FALL)	
		"N"	
LOOSE	LESS THAN 10	SOFT	LESS THAN 4
MEDIUM	10 TO 30	MEDIUM	4 TO 8
DENSE	GREATER THAN 30	STIFF	GREATER THAN 8 TO 30
		HARD	GREATER THAN 30

ROTARY CORES	X HEAVY CORES	SPOON	CB - CASING BLOW PER 1 FOOT DRIVE	US - UNDISTURBED SOIL SAMPLE
SIZE: INCHES	2.5	2.0	8 INCH DRIVE	NO. SAMPLE NUMBER
HAMMER WEIGHT, LBS.	140	140	IF PULSES BY WEIGHT OF HAMMER	FEET - DEPTH FROM GND SUR. NOTED AT EACH 5'
HAMMER FALL, INCHES	30	30	HIGH - HEIGHT OF HAMMER	WH - HEIGHT OF HAMMER

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SUBSURFACE INVESTIGATION
 LONG BEACH BOARD WALK
 NEW YORK AVENUE
 LONG BEACH, NEW YORK

VERTICAL BORING SCALE: 1/2" = 1'-0" UNLESS NOTED OTHERWISE
 DATES OF BORINGS: APRIL 16, 17 & 18, 2013
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 SHEET 2 OF 3



UNIFIED SOIL CLASSIFICATION	
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1a THRU 1d	BEDROCK
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6. ORGANIC SILTS, ORGANIC CLAYS, PEATS, SOFT CLAYS, LOOSE GRANULAR SOILS and MARVED SILTS	SEE 1804.2.1 *	SEE 1804.2.1 *
7. CONTROLLED and UNCONTROLLED FILLS	SEE 1804.2.2 OR 1804.2.3 *	SEE 1804.2.2 OR 1804.2.3 *

COMPACTION RELATED TO SPOON BLOWS/FOOT		STANDARD PENETRATION TEST - ASTM D 1586 (IF SPOON 140B HAMMER 30" FALL)	
SAND & SILT	CLAY	N ₆₀	SPOON BLOW COUNT IS GENERALLY SHOWN IN 6" INCREMENTS FOR DRIVE TO OBTAIN BLOWS PER FOOT (N ₆₀) USE 2ND & 3RD INCREMENT
LOOSE	LESS THAN 10	LESS THAN 4	
MEDIUM	10 TO 30	MEDIUM	4 TO 8
DENSE	GREATER THAN 31	STIFF	GREATER THAN 8 TO 30
		HARD	GREATER THAN 30

SOIL MECHANICS DRILLING CORP.
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