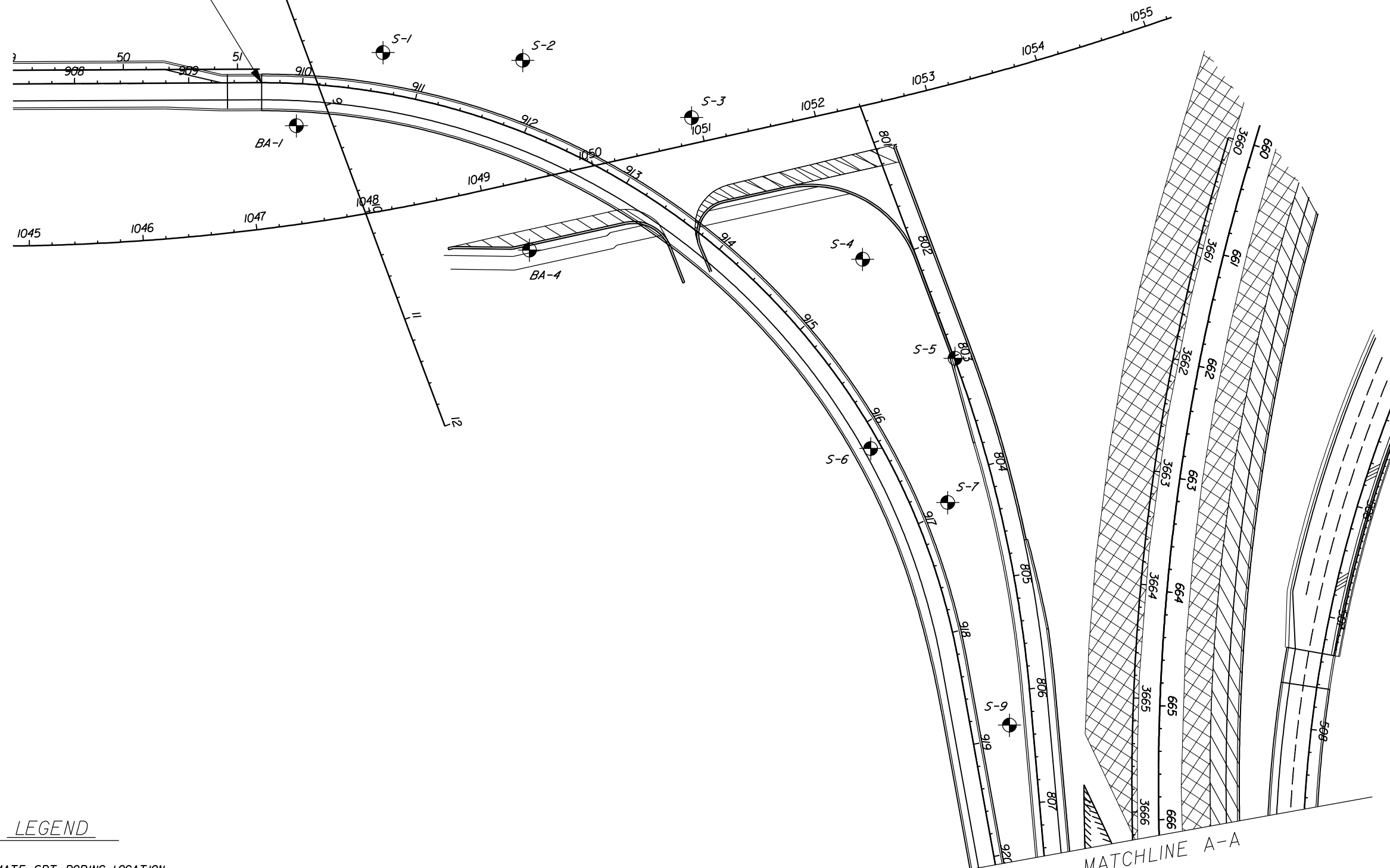


BEGIN BRIDGE NO. 100711
STA. 909+64.00



LEGEND

APPROXIMATE SPT BORING LOCATION

REVISIONS		DATE	BY	DESCRIPTION

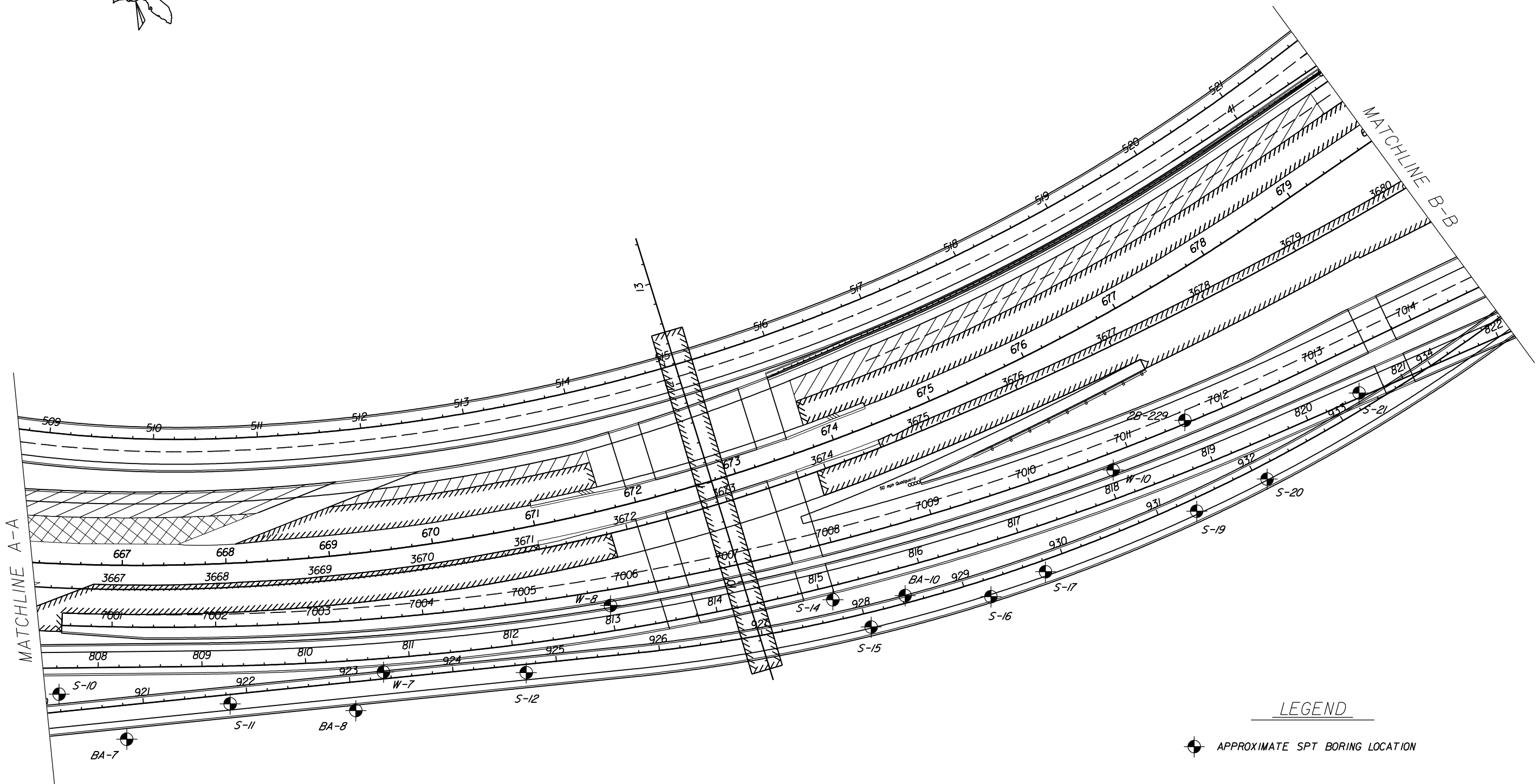
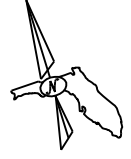
DATE	BY	DESCRIPTION

ENGINEER OF RECORD:
PROFESSIONAL SERVICE INDUSTRIES, INC.
5801 BENJAMIN CENTER DR., SUITE 112
TAMPA, FL 33634 (813) 886-1075
FLORIDA ENGINEERING CERTIFICATE
OF AUTHORIZATION No. 3684
CHING L. KUO, P.H.D., P.E.
FLORIDA LICENSE No. 36115

AA4 (SEGMENTAL/BULB-T)		
FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 400	HILLSBOROUGH	258415-1-52-01

BRIDGE NO. 100711	
REPORT OF CORE BORINGS (1 OF 24)	
PROJECT NAME:	SHEET NO.
1-4/LEE ROY SELMON EXPRESSWAY INTERCHANGE	B9-30

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G5-23.003, F.A.C.



LEGEND

⊙ APPROXIMATE SPT BORING LOCATION

REVISIONS		DATE	BY	DESCRIPTION

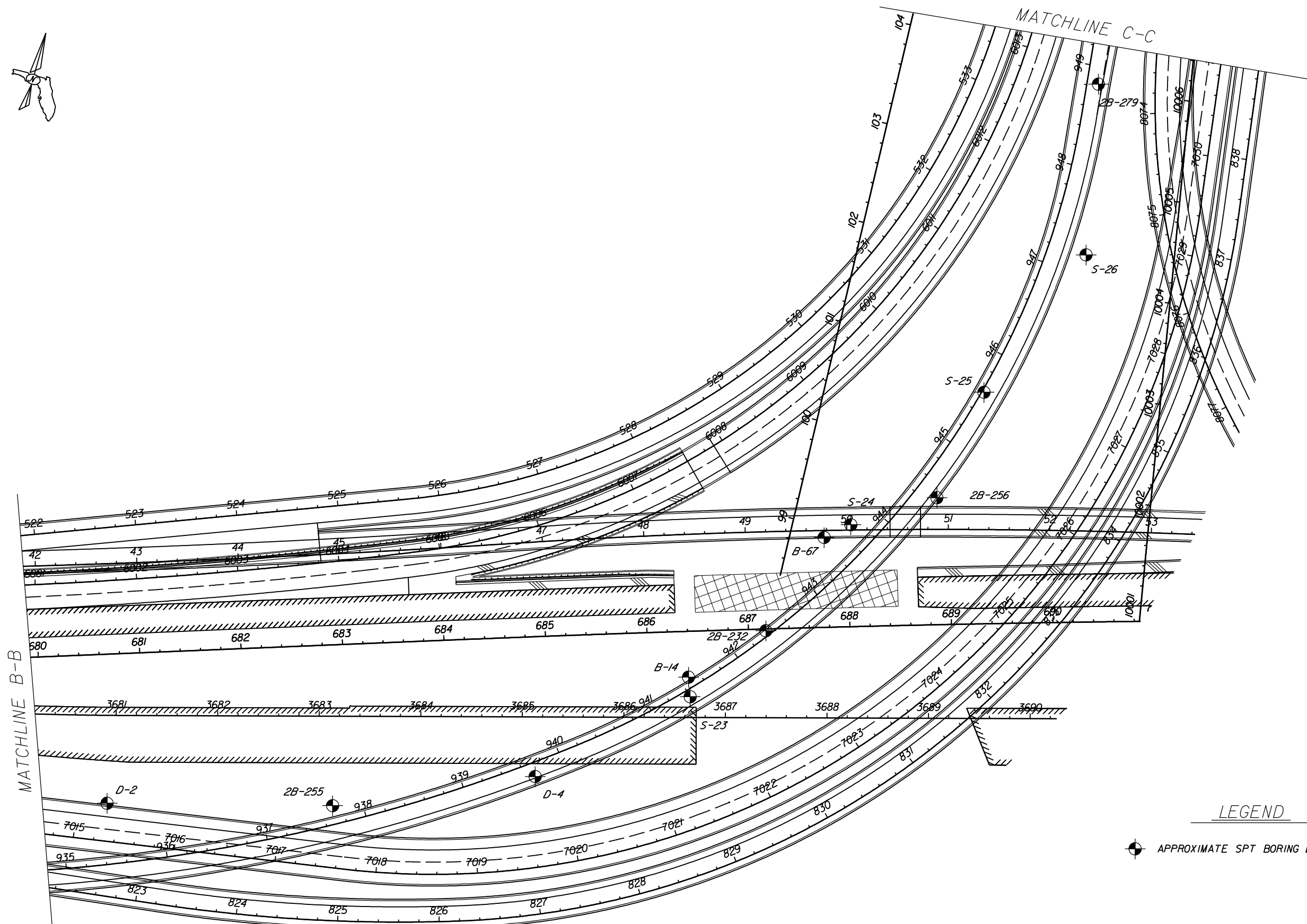
DATE	BY	DESCRIPTION

ENGINEER OF RECORD:
 PROFESSIONAL SERVICE INDUSTRIES, INC.
 5801 BENJAMIN CENTER DR., SUITE 112
 TAMPA, FL 33634 (813) 886-1075
 FLORIDA ENGINEERING CERTIFICATE
 OF AUTHORIZATION No. 3684
 CHING L. KUO, P.H.D., P.E.
 FLORIDA LICENSE No. 36115

AA4 (SEGMENTAL/BULB-T)		
FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 400	HILLSBOROUGH	258415-1-52-01

BRIDGE NO. 100711	
REPORT OF CORE BORINGS (2 OF 24)	
PROJECT NAME:	SHEET NO.
1-4/LEE ROY SELMON EXPRESSWAY INTERCHANGE	B9-31

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G5-23.003, F.A.C.



LEGEND

● APPROXIMATE SPT BORING LOCATION

DATE		BY		DESCRIPTION	

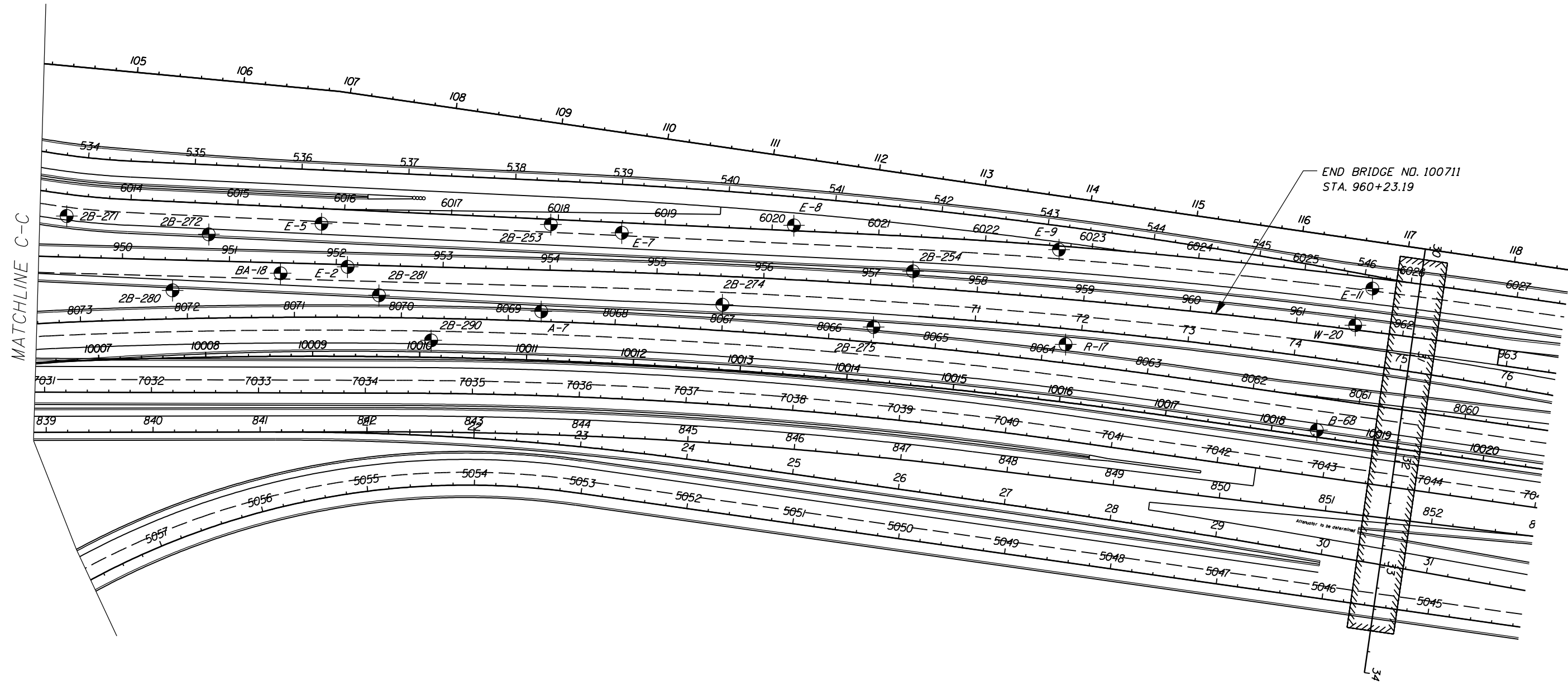
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

ENGINEER OF RECORD:
 PROFESSIONAL SERVICE INDUSTRIES, INC.
 5801 BENJAMIN CENTER DR., SUITE 112
 TAMPA, FL 33634 (813) 886-1075
 FLORIDA ENGINEERING CERTIFICATE
 OF AUTHORIZATION No. 3684
 CHING L. KUO, Ph.D., P.E.
 FLORIDA LICENSE No. 36115

AA4 (SEGMENTAL/BULB-T)		
FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 400	HILLSBOROUGH	258415-1-52-01

BRIDGE NO. 100711	
REPORT OF CORE BORINGS (3 OF 24)	
PROJECT NAME:	SHEET NO.
1-4/LEE ROY SELMON EXPRESSWAY INTERCHANGE	B9-32

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G5-23.003, F.A.C.



LEGEND

⊕ APPROXIMATE SPT BORING LOCATION

DATE		BY	DESCRIPTION	DATE	BY	DESCRIPTION
REVISIONS						

DRAWN BY	DJG	11/08
CHECKED BY	ALG	11/08
DESIGNED BY		
CHECKED BY		
APPROVED BY	CHING L. KUO, P.E.	

ENGINEER OF RECORD,
 PROFESSIONAL SERVICE INDUSTRIES, INC.
 5801 BENJAMIN CENTER DR., SUITE 112
 TAMPA, FL 33634 (813) 886-1075
 FLORIDA ENGINEERING CERTIFICATE
 OF AUTHORIZATION No. 3684
 CHING L. KUO, P.E.
 FLORIDA LICENSE No. 36115

AA4 (SEGMENTAL/BULB-T)		
FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 400	HILLSBOROUGH	258415-1-52-01

BRIDGE NO. 100711	
REPORT OF CORE BORINGS (4 OF 24)	
PROJECT NAME	SHEET NO.
I-4/LEE ROY SELMON EXPRESSWAY INTERCHANGE	B9-33

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G5-23.003, F.A.C.

LEGEND

- (SP/SP-SM), GRAY-BROWN TO LIGHT TAN-SLIGHTLY SILTY FINE SAND TO FINE SAND
- (SM), BROWN TO DARK BROWN SILTY FINE SAND
- (SC), DARK BROWN TO GRAY CLAYEY FINE SAND
- (CL/CH), GRAY-BROWN OR BLUE-GREEN SANDY CLAY
- (WH), HIGHLY TO COMPLETELY WEATHERED TAN LIMESTONE
- (PT), DARK BROWN TO BLACK SANDY PEAT
- (WS), SLIGHTLY WEATHERED TAN LIMESTONE/DOLOMITE
- (CL), LIGHT GRAY TO BROWN SANDY CLAY
- (SM-SC), BROWN TO GRAY SLIGHTLY SILTY OR CLAYEY FINE SAND
- CHERT
- (ML/MH), TAN TO DARK GRAY SLIGHTLY SANDY SILT

- A WITH LIMESTONE
- B WITH CEMENTED SAND
- C WITH SILT AND CLAY
- D WITH BROKEN GLASS/DEBRIS
- E WITH SUSPECT CONTAMINATION ODOR
- F WITH TRACE OF PHOSPHATE
- G WITH SHELL FRAGMENTS
- H PARTIALLY INDURATED
- I WITH TRACE ORGANICS
- J WITH CHERT

ENVIRONMENTAL CLASSIFICATION

SUBSTRUCTURE: EXTREMELY AGGRESSIVE
SUPERSTRUCTURE: EXTREMELY AGGRESSIVE

SOIL

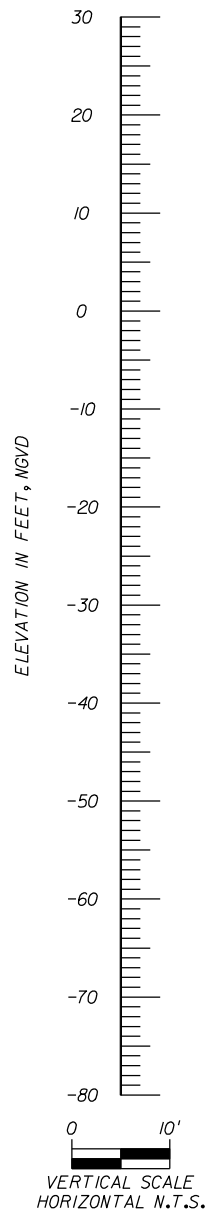
RESISTIVITY: 90 - 26,000 OHMS-CM
CHLORIDES: < 10 - 5,500 PPM
SULFATES: 0 - 3,462 PPM
pH: 3.00 - 9.05

WATER

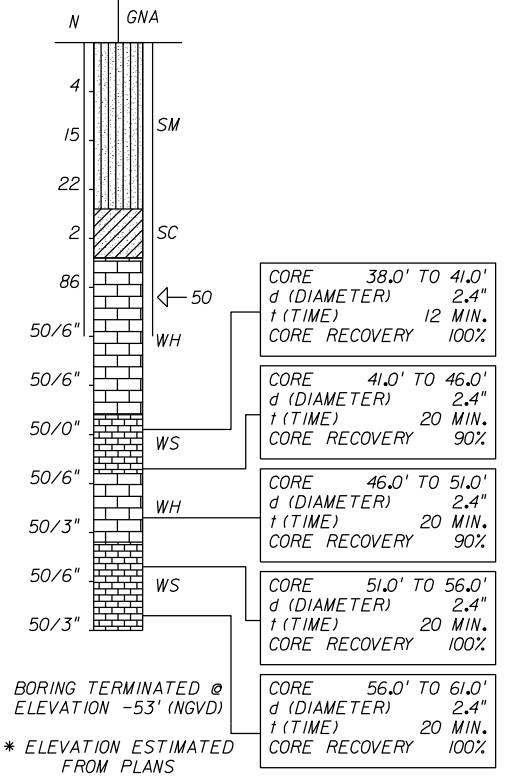
RESISTIVITY: 27 - 3,200 OHMS-CM
CHLORIDES: 45 - 16,230 PPM
SULFATES: 20 - 3,520 PPM
pH: 6.94 - 7.40

GRANULAR MATERIALS-RELATIVE DENSITY	SPT (BLOWS/FT.)
VERY LOOSE	LESS THAN 4
LOOSE	5-10
MEDIUM	11-30
DENSE	31-50
VERY DENSE	GREATER THAN 50

SILTS AND CLAYS CONSISTENCY	SPT (BLOWS/FT.)
VERY SOFT	LESS THAN 2
SOFT	3-4
FIRM	5-8
STIFF	9-15
VERY STIFF	16-30
HARD	GREATER THAN 30

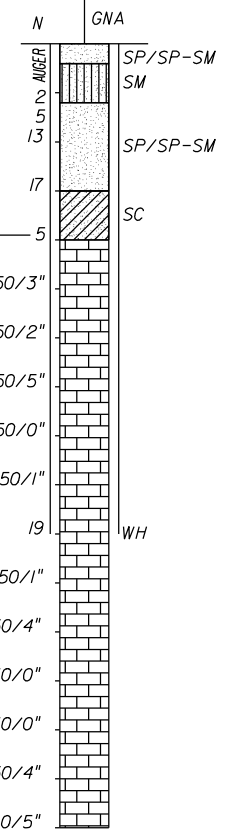


BORING NO. BA-1
STATION NO. 909+97
OFFSET 37' RT.
ELEVATION 7' *
DATE 2/6/05
HAMMER SAFETY
TYPE OF RIG CME 550



BORING TERMINATED @ ELEVATION -53' (NGVD)
* ELEVATION ESTIMATED FROM PLANS

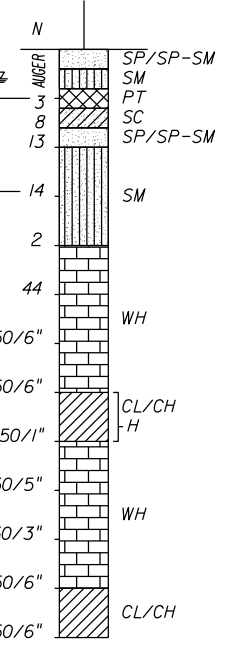
BORING NO. S-1
STATION NO. 910+65
OFFSET 35' LT.
ELEVATION 8.8'
DATE 10/19/06
HAMMER SAFETY
TYPE OF RIG CME 45



-200=30%
NMC=39%
LL=40%
PI=21%

BORING TERMINATED @ ELEVATION -71.2' (NGVD)

BORING NO. S-2
STATION NO. 911+78
OFFSET 59' LT.
ELEVATION 10.7'
DATE 11/13/06
HAMMER SAFETY
TYPE OF RIG CME 75

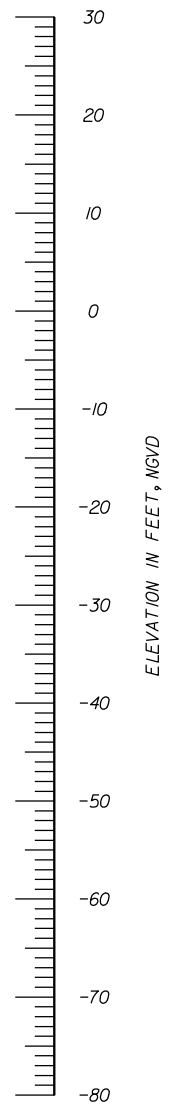


-200=85%
OC=10%

-200=12%

BORING TERMINATED @ ELEVATION -49.3' (NGVD)

NOTE: DIFFICULT DRILLING MAY BE ENCOUNTERED DUE TO THE PRESENCE OF CHERT LAYERS. SPECIAL TOOLS AND EQUIPMENT MAY BE REQUIRED TO PENETRATE THIS STRATUM.



STANDARD PENETRATION TEST

NUMBERS TO THE LEFT OF BORINGS INDICATE SPT VALUE FOR 12" PENETRATION. (UNLESS OTHERWISE NOTED.)
50/6" FIFTY BLOWS FOR SIX INCHES
WATER TABLE
GNA GROUNDWATER LEVEL NOT APPARENT
WR ON THE LEFT SIDE OF A SOIL PROFILE INDICATES THE SAMPLER FELL UNDER THE WEIGHT OF ROD

ON THE LEFT SIDE OF A SOIL PROFILE WH INDICATES THE SAMPLER FELL UNDER THE WEIGHT OF ROD AND HAMMER
NSR NO SAMPLE RECOVERED
CASING USED
LOSS OF CIRCULATION (%)
RECOVERY OF CIRCULATION (%)
SHELBY TUBE SAMPLE LOCATION

CORE DATA

d ROCK CORE DIAMETER (INCHES)
t ROCK CORE TIME
RQD ROCK QUALITY DESIGNATION
γ UNIT WEIGHT (PCF)
qu UNCONFINED COMPRESSION (PSI)
qst SPLIT TENSILE STRENGTH (PSI)

LAB RESULTS

-200 FINES PASSING NO. 200 SIEVE (%)
NMC NATURAL MOISTURE CONTENT (%)
OC ORGANIC CONTENT (%)
LL LIQUID LIMIT (%)
PI PLASTICITY INDEX (%)
NP NON PLASTIC

REVISIONS				DRAWN BY		DESIGNED BY		CHECKED BY		APPROVED BY		ENGINEER OF RECORD			FLORIDA DEPARTMENT OF TRANSPORTATION			SHEET TITLE		
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G5-23.003, F.A.C.

AA4 (SEGMENTAL/BULB-T)			BRIDGE NO. 100711		
REPORT OF CORE BORINGS (5 OF 24)					
ROAD NO.	COUNTY	FINANCIAL PROJECT ID	PROJECT NAME	SHEET NO.	
SR 400	HILLSBOROUGH	258415-1-52-01	1-4/LEE ROY SELMON EXPRESSWAY INTERCHANGE	B9-34	

LEGEND

- (SP/SP-SM), GRAY-BROWN TO LIGHT TAN-SLIGHTLY SILTY FINE SAND TO FINE SAND
- (SM), BROWN TO DARK BROWN SILTY FINE SAND
- (SC), DARK BROWN TO GRAY CLAYEY FINE SAND
- (CL/CH), GRAY-BROWN OR BLUE-GREEN SANDY CLAY
- (WH), HIGHLY TO COMPLETELY WEATHERED TAN LIMESTONE
- (PT), DARK BROWN TO BLACK SANDY PEAT
- (WS), SLIGHTLY WEATHERED TAN LIMESTONE/DOLOMITE
- (CL), LIGHT GRAY TO BROWN SANDY CLAY
- (SM-SC), BROWN TO GRAY SLIGHTLY SILTY OR CLAYEY FINE SAND
- CHERT
- (ML/MH), TAN TO DARK GRAY SLIGHTLY SANDY SILT

- A WITH LIMESTONE
- B WITH CEMENTED SAND
- C WITH SILT AND CLAY
- D WITH BROKEN GLASS/DEBRIS
- E WITH SUSPECT CONTAMINATION ODOR
- F WITH TRACE OF PHOSPHATE
- G WITH SHELL FRAGMENTS
- H PARTIALLY INDURATED
- I WITH TRACE ORGANICS
- J WITH CHERT

ENVIRONMENTAL CLASSIFICATION

SUBSTRUCTURE: EXTREMELY AGGRESSIVE
SUPERSTRUCTURE: EXTREMELY AGGRESSIVE

SOIL

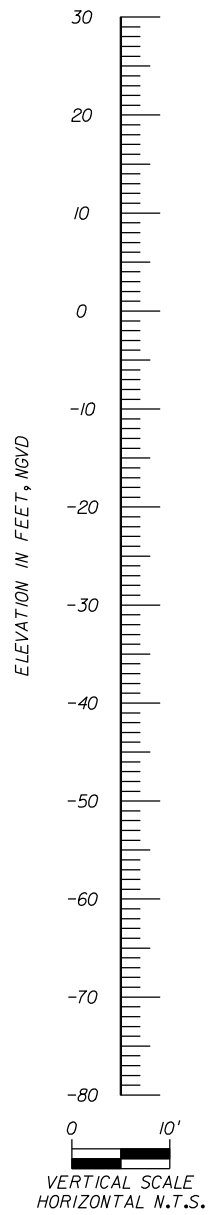
RESISTIVITY: 90 - 26,000 OHMS-CM
CHLORIDES: < 10 - 5,500 PPM
SULFATES: 0 - 3,462 PPM
pH: 3.00 - 9.05

WATER

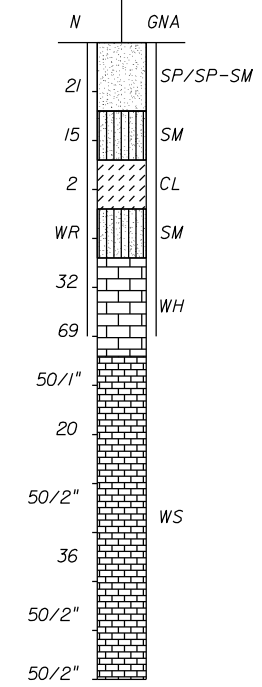
RESISTIVITY: 27 - 3,200 OHMS-CM
CHLORIDES: 45 - 16,230 PPM
SULFATES: 20 - 3,520 PPM
pH: 6.94 - 7.40

GRANULAR MATERIALS-RELATIVE DENSITY	SPT (BLOWS/FT.)
VERY LOOSE	LESS THAN 4
LOOSE	5-10
MEDIUM	11-30
DENSE	31-50
VERY DENSE	GREATER THAN 50

SILTS AND CLAYS CONSISTENCY	SPT (BLOWS/FT.)
VERY SOFT	LESS THAN 2
SOFT	3-4
FIRM	5-8
STIFF	9-15
VERY STIFF	16-30
HARD	GREATER THAN 30

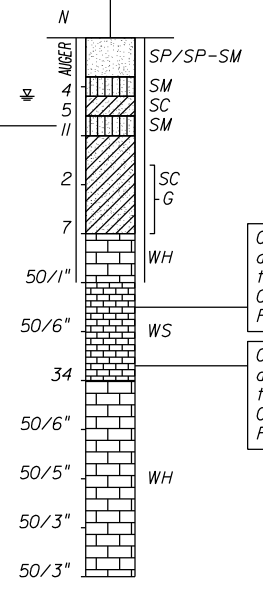


BORING NO. BA-4
STATION NO. 912+50
OFFSET 92' RT.
ELEVATION 7.0'
DATE 2/21/05
HAMMER SAFETY
TYPE OF RIG DIEDRICH 120



BORING TERMINATED @ ELEVATION -58.0' (NGVD)

BORING NO. S-3
STATION NO. 913+18
OFFSET 79' LT.
ELEVATION 7.5'
DATE 3/23/07
HAMMER SAFETY
TYPE OF RIG CME 75

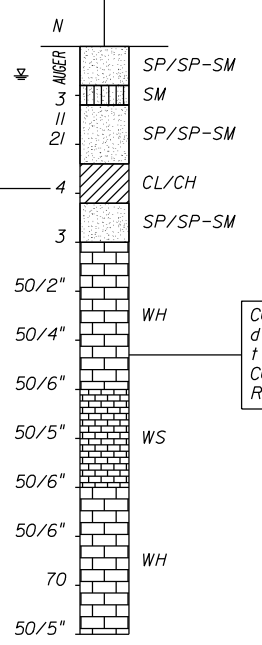


BORING TERMINATED @ ELEVATION -47.5' (NGVD)

CORE 25.0' TO 30.0'
d (DIAMETER) 2.4"
t (TIME) 56 MIN.
CORE RECOVERY 53%
RQD 18%

CORE 31.0' TO 36.0'
d (DIAMETER) 2.4"
t (TIME) 35 MIN.
CORE RECOVERY 73%
RQD 12%

BORING NO. S-4
STATION NO. 914+90
OFFSET 82' LT.
ELEVATION 6.7'
DATE 11/17/06
HAMMER SAFETY
TYPE OF RIG CME 75



BORING TERMINATED @ ELEVATION -53.3' (NGVD)

-200=72%
NMC=49%
LL=81%
PI=58%

CORE 29.0' TO 34.0'
d (DIAMETER) 2.4"
t (TIME) 30 MIN.
CORE RECOVERY 92%
RQD 57%

NOTE: DIFFICULT DRILLING MAY BE ENCOUNTERED DUE TO THE PRESENCE OF CHERT LAYERS. SPECIAL TOOLS AND EQUIPMENT MAY BE REQUIRED TO PENETRATE THIS STRATUM.

STANDARD PENETRATION TEST

NUMBERS TO THE LEFT OF BORINGS INDICATE SPT VALUE FOR 12" PENETRATION. (UNLESS OTHERWISE NOTED.)

50/6" FIFTY BLOWS FOR SIX INCHES

WATER TABLE

GNA GROUNDWATER LEVEL NOT APPARENT

WR ON THE LEFT SIDE OF A SOIL PROFILE INDICATES THE SAMPLER FELL UNDER THE WEIGHT OF ROD

ON THE LEFT SIDE OF A SOIL PROFILE INDICATES THE SAMPLER FELL UNDER THE WEIGHT OF ROD AND HAMMER

NSR NO SAMPLE RECOVERED

CASING USED

LOSS OF CIRCULATION (%)

RECOVERY OF CIRCULATION (%)

SHELBY TUBE SAMPLE LOCATION

CORE DATA

d ROCK CORE DIAMETER (INCHES)

t ROCK CORE TIME

RQD ROCK QUALITY DESIGNATION

γ UNIT WEIGHT (PCF)

q_u UNCONFINED COMPRESSION (PSI)

q_{st} SPLIT TENSILE STRENGTH (PSI)

LAB RESULTS

-200 FINES PASSING NO. 200 SIEVE (%)

NMC NATURAL MOISTURE CONTENT (%)

OC ORGANIC CONTENT (%)

LL LIQUID LIMIT (%)

PI PLASTICITY INDEX (%)

NP NON PLASTIC

REVISIONS				NAMES		DATES		ENGINEER OF RECORD			SHEET TITLE		
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	ENGINEER OF RECORD: PROFESSIONAL SERVICE INDUSTRIES, INC. 5801 BENJAMIN CENTER DR., SUITE 112 TAMPA, FL 33634 (813) 886-1075 FLORIDA ENGINEERING CERTIFICATE OF AUTHORIZATION No. 3684 CHING L. KUO, P.H.D., P.E. FLORIDA LICENSE No. 36115			REPORT OF CORE BORINGS (6 OF 24)		
				DRAWN BY: DYG		11/08		AA4 (SEGMENTAL/BULB-T)			BRIDGE NO. 100711		
				CHECKED BY: ALG		11/08		FLORIDA DEPARTMENT OF TRANSPORTATION			PROJECT NAME: 1-4/LEE ROY SELMON EXPRESSWAY INTERCHANGE		
				DESIGNED BY: .		.		ROAD NO. SR 400			COUNTY HILLSBOROUGH		
				CHECKED BY: .		.		FINANCIAL PROJECT ID 258415-1-52-01			SHEET NO. B9-35		
				APPROVED BY: CHING L. KUO, P.H.D., P.E.									

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G5-23.003, F.A.C.

LEGEND

- (SP/SP-SM), GRAY-BROWN TO LIGHT TAN-SLIGHTLY SILTY FINE SAND TO FINE SAND
- (SM), BROWN TO DARK BROWN SILTY FINE SAND
- (SC), DARK BROWN TO GRAY CLAYEY FINE SAND
- (CL/CH), GRAY-BROWN OR BLUE-GREEN SANDY CLAY
- (WH), HIGHLY TO COMPLETELY WEATHERED TAN LIMESTONE
- (PT), DARK BROWN TO BLACK SANDY PEAT
- (WS), SLIGHTLY WEATHERED TAN LIMESTONE/DOLOMITE
- (CL), LIGHT GRAY TO BROWN SANDY CLAY
- (SM-SC), BROWN TO GRAY SLIGHTLY SILTY OR CLAYEY FINE SAND
- CHERT
- (ML/MH), TAN TO DARK GRAY SLIGHTLY SANDY SILT

- A WITH LIMESTONE
- B WITH CEMENTED SAND
- C WITH SILT AND CLAY
- D WITH BROKEN GLASS/DEBRIS
- E WITH SUSPECT CONTAMINATION ODOR
- F WITH TRACE OF PHOSPHATE
- G WITH SHELL FRAGMENTS
- H PARTIALLY INDURATED
- I WITH TRACE ORGANICS
- J WITH CHERT

ENVIRONMENTAL CLASSIFICATION

SUBSTRUCTURE: EXTREMELY AGGRESSIVE
SUPERSTRUCTURE: EXTREMELY AGGRESSIVE

SOIL

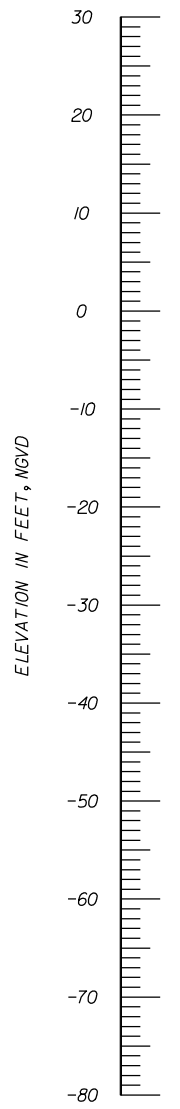
RESISTIVITY: 90 - 26,000 OHMS-CM
CHLORIDES: < 10 - 5,500 PPM
SULFATES: 0 - 3,462 PPM
pH: 3.00 - 9.05

WATER

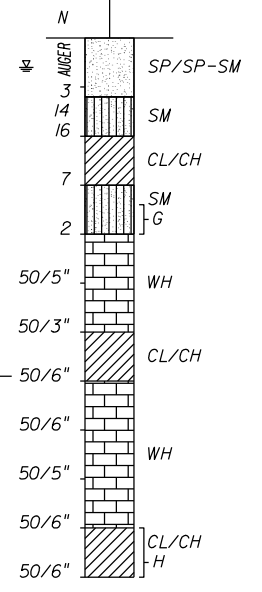
RESISTIVITY: 27 - 3,200 OHMS-CM
CHLORIDES: 45 - 16,230 PPM
SULFATES: 20 - 3,520 PPM
pH: 6.94 - 7.40

GRANULAR MATERIALS-RELATIVE DENSITY	SPT (BLOWS/FT.)
VERY LOOSE	LESS THAN 4
LOOSE	5-10
MEDIUM	11-30
DENSE	31-50
VERY DENSE	GREATER THAN 50

SILTS AND CLAYS CONSISTENCY	SPT (BLOWS/FT.)
VERY SOFT	LESS THAN 2
SOFT	3-4
FIRM	5-8
STIFF	9-15
VERY STIFF	16-30
HARD	GREATER THAN 30



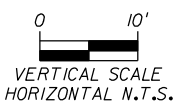
BORING NO. S-5
STATION NO. 915+94
OFFSET 95' LT.
ELEVATION 6.3'
DATE 11/14/06
HAMMER SAFETY
TYPE OF RIG CME 75



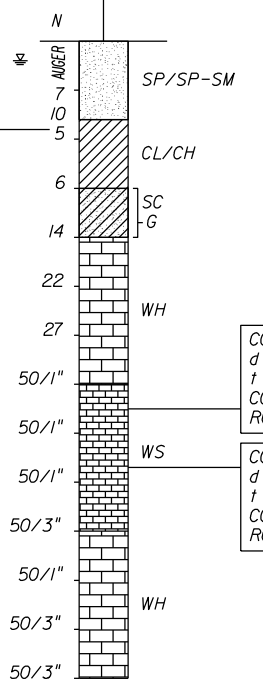
-200=38%
NMC=41%
LL=80%
PI=47%

BORING TERMINATED @
ELEVATION -48.7' (NGVD)

NOTE: DIFFICULT DRILLING MAY BE ENCOUNTERED DUE TO THE PRESENCE OF CHERT LAYERS. SPECIAL TOOLS AND EQUIPMENT MAY BE REQUIRED TO PENETRATE THIS STRATUM.



BORING NO. S-6
STATION NO. 916+22
OFFSET 9' RT.
ELEVATION 6.1'
DATE 3/1/07
HAMMER SAFETY
TYPE OF RIG CME 75



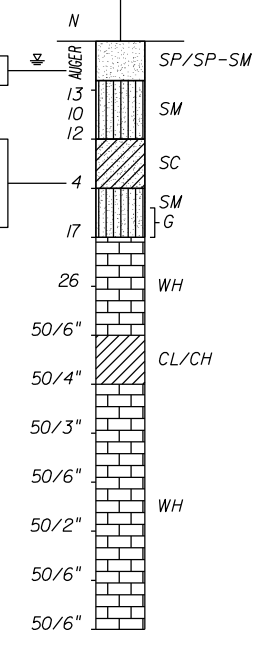
-200=60%
NMC=44%
LL=39%
PI=23%

CORE 35.0' TO 40.0'
d (DIAMETER) 2.4"
t (TIME) 43 MIN.
CORE RECOVERY 68%
RQD 48%

CORE 41.0' TO 46.0'
d (DIAMETER) 2.4"
t (TIME) 54 MIN.
CORE RECOVERY 100%
RQD 80%

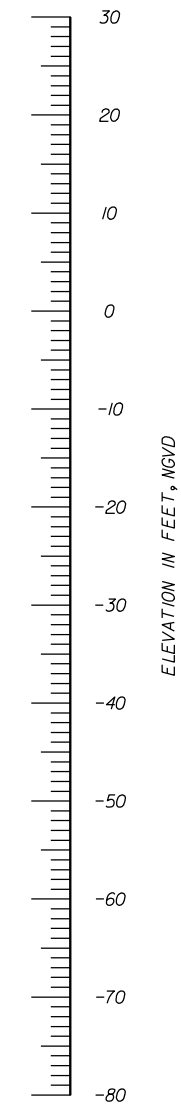
BORING TERMINATED @
ELEVATION -58.9' (NGVD)

BORING NO. S-7
STATION NO. 916+93
OFFSET 31' LT.
ELEVATION 6.1'
DATE 11/16/06
HAMMER SAFETY
TYPE OF RIG CME 75



-200=66%
NMC=42%
LL=58%
PI=35%

BORING TERMINATED @
ELEVATION -53.9' (NGVD)



STANDARD PENETRATION TEST

NUMBERS TO THE LEFT OF BORINGS INDICATE SPT VALUE FOR 12" PENETRATION. (UNLESS OTHERWISE NOTED.)
50/6" FIFTY BLOWS FOR SIX INCHES
WATER TABLE
GROUNDWATER LEVEL NOT APPARENT
ON THE LEFT SIDE OF A SOIL PROFILE INDICATES THE SAMPLER FELL UNDER THE WEIGHT OF ROD

ON THE LEFT SIDE OF A SOIL PROFILE INDICATES THE SAMPLER FELL UNDER THE WEIGHT OF ROD AND HAMMER
NO SAMPLE RECOVERED
CASING USED
LOSS OF CIRCULATION (%)
RECOVERY OF CIRCULATION (%)
SHELBY TUBE SAMPLE LOCATION

CORE DATA

d ROCK CORE DIAMETER (INCHES)
t ROCK CORE TIME
RQD ROCK QUALITY DESIGNATION
γ UNIT WEIGHT (PCF)
qu UNCONFINED COMPRESSION (PSI)
qst SPLIT TENSILE STRENGTH (PSI)

LAB RESULTS

-200 FINES PASSING NO. 200 SIEVE (%)
NMC NATURAL MOISTURE CONTENT (%)
OC ORGANIC CONTENT (%)
LL LIQUID LIMIT (%)
PI PLASTICITY INDEX (%)
NP NON PLASTIC

REVISIONS				DRAWN BY		DESIGNED BY		CHECKED BY		APPROVED BY		ENGINEER OF RECORD			PROJECT INFORMATION			SHEET INFORMATION	
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	NAME	DATE	PROJECT NO.	COUNTY	FINANCIAL PROJECT ID	PROJECT NAME	SHEET NO.	
												CHING L. KUO, P.E.	11/14/06	SR 400	HILLSBOROUGH	258415-1-52-01	1-4/LEE ROY SELMON EXPRESSWAY INTERCHANGE	B9-36	

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G5-23.003, F.A.C.

AA4 (SEGMENTAL/BULB-T) BRIDGE NO. 100711

FLORIDA DEPARTMENT OF TRANSPORTATION
REPORT OF CORE BORINGS (7 OF 24)

LEGEND

- (SP/SP-SM), GRAY-BROWN TO LIGHT TAN-SLIGHTLY SILTY FINE SAND TO FINE SAND
- (SM), BROWN TO DARK BROWN SILTY FINE SAND
- (SC), DARK BROWN TO GRAY CLAYEY FINE SAND
- (CL/CH), GRAY-BROWN OR BLUE-GREEN SANDY CLAY
- (WH), HIGHLY TO COMPLETELY WEATHERED TAN LIMESTONE
- (PT), DARK BROWN TO BLACK SANDY PEAT
- (WS), SLIGHTLY WEATHERED TAN LIMESTONE/DOLOMITE
- (CL), LIGHT GRAY TO BROWN SANDY CLAY
- (SM-SC), BROWN TO GRAY SLIGHTLY SILTY OR CLAYEY FINE SAND
- CHERT
- (ML/MH), TAN TO DARK GRAY SLIGHTLY SANDY SILT

- A WITH LIMESTONE
- B WITH CEMENTED SAND
- C WITH SILT AND CLAY
- D WITH BROKEN GLASS/DEBRIS
- E WITH SUSPECT CONTAMINATION ODOR
- F WITH TRACE OF PHOSPHATE
- G WITH SHELL FRAGMENTS
- H PARTIALLY INDURATED
- I WITH TRACE ORGANICS
- J WITH CHERT

ENVIRONMENTAL CLASSIFICATION

SUBSTRUCTURE: EXTREMELY AGGRESSIVE
SUPERSTRUCTURE: EXTREMELY AGGRESSIVE

SOIL

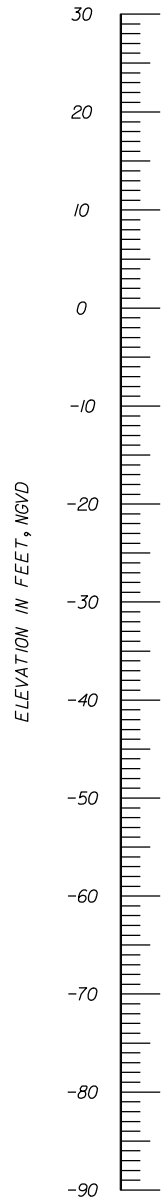
RESISTIVITY: 90 - 26,000 OHMS-CM
CHLORIDES: < 10 - 5,500 PPM
SULFATES: 0 - 3,462 PPM
pH: 3.00 - 9.05

WATER

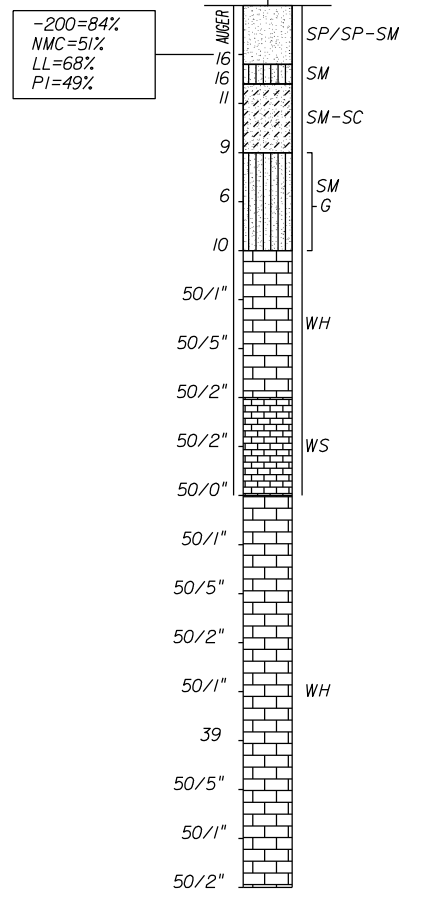
RESISTIVITY: 27 - 3,200 OHMS-CM
CHLORIDES: 45 - 16,230 PPM
SULFATES: 20 - 3,520 PPM
pH: 6.94 - 7.40

GRANULAR MATERIALS-RELATIVE DENSITY	SPT (BLOWS/FT.)
VERY LOOSE	LESS THAN 4
LOOSE	5-10
MEDIUM	11-30
DENSE	31-50
VERY DENSE	GREATER THAN 50

SILTS AND CLAYS CONSISTENCY	SPT (BLOWS/FT.)
VERY SOFT	LESS THAN 2
SOFT	3-4
FIRM	5-8
STIFF	9-15
VERY STIFF	16-30
HARD	GREATER THAN 30

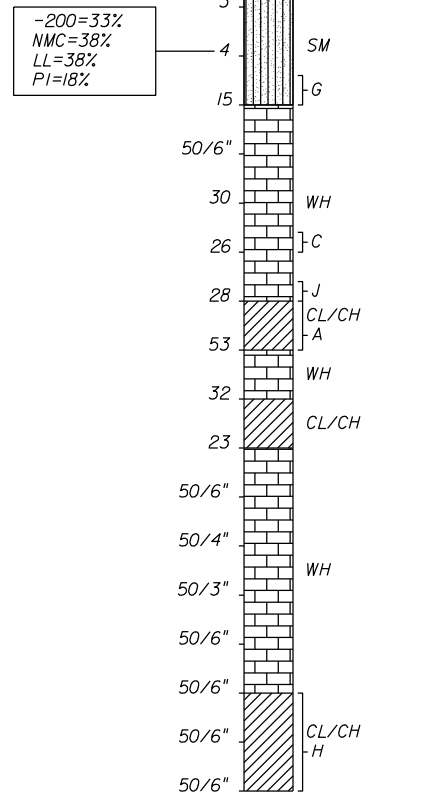


BORING NO. S-9
STATION NO. 918+89
OFFSET 34' LT.
ELEVATION 8.2'
DATE 10/18/06
HAMMER SAFETY
TYPE OF RIG CME 45



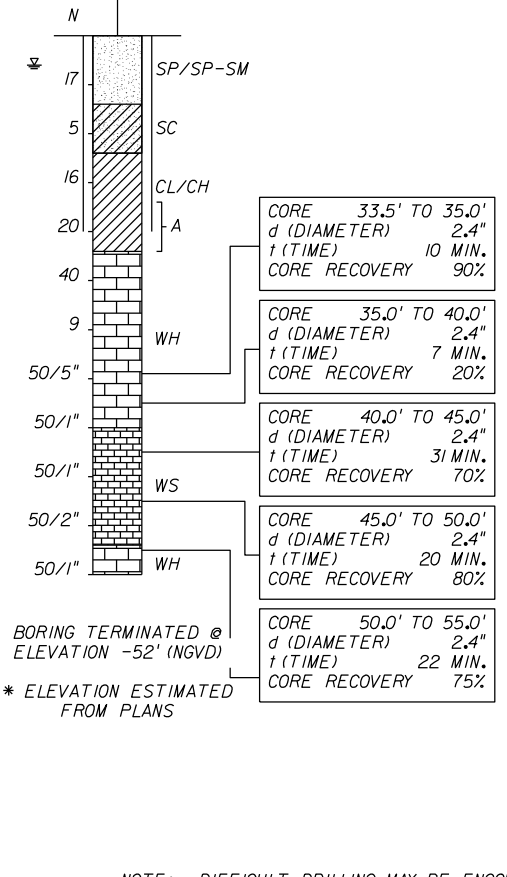
BORING TERMINATED @ ELEVATION -81.8' (NGVD)

BORING NO. S-10
STATION NO. 920+20
OFFSET 17' LT.
ELEVATION 7.2'
DATE 11/8/06
HAMMER SAFETY
TYPE OF RIG CME 75



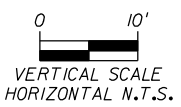
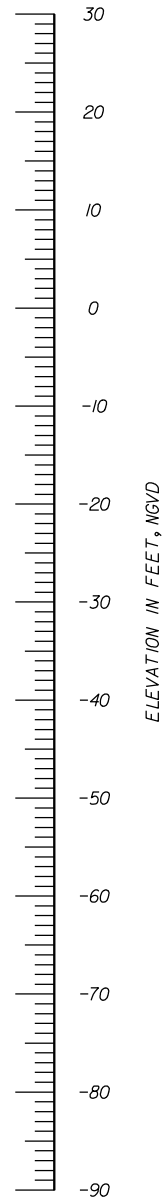
BORING TERMINATED @ ELEVATION -82.8' (NGVD)

BORING NO. BA-7
STATION NO. 920+80
OFFSET 33' RT.
ELEVATION 3' *
DATE 3/24/05
HAMMER SAFETY
TYPE OF RIG CME 550



BORING TERMINATED @ ELEVATION -52' (NGVD)
* ELEVATION ESTIMATED FROM PLANS

NOTE: DIFFICULT DRILLING MAY BE ENCOUNTERED DUE TO THE PRESENCE OF CHERT LAYERS. SPECIAL TOOLS AND EQUIPMENT MAY BE REQUIRED TO PENETRATE THIS STRATUM.



STANDARD PENETRATION TEST

- N NUMBERS TO THE LEFT OF BORINGS INDICATE SPT VALUE FOR 12" PENETRATION. (UNLESS OTHERWISE NOTED.)
- 50/6" FIFTY BLOWS FOR SIX INCHES
- WATER TABLE
- GNA GROUNDWATER LEVEL NOT APPARENT
- WR ON THE LEFT SIDE OF A SOIL PROFILE INDICATES THE SAMPLER FELL UNDER THE WEIGHT OF ROD
- WH ON THE LEFT SIDE OF A SOIL PROFILE INDICATES THE SAMPLER FELL UNDER THE WEIGHT OF ROD AND HAMMER
- NSR NO SAMPLE RECOVERED
- CASING USED
- LOSS OF CIRCULATION (%)
- RECOVERY OF CIRCULATION (%)
- SHELBY TUBE SAMPLE LOCATION

CORE DATA

- d ROCK CORE DIAMETER (INCHES)
- t ROCK CORE TIME
- RQD ROCK QUALITY DESIGNATION
- γ UNIT WEIGHT (PCF)
- qu UNCONFINED COMPRESSION (PSI)
- qst SPLIT TENSILE STRENGTH (PSI)

LAB RESULTS

- 200 FINES PASSING NO. 200 SIEVE (%)
- NMC NATURAL MOISTURE CONTENT (%)
- OC ORGANIC CONTENT (%)
- LL LIQUID LIMIT (%)
- PI PLASTICITY INDEX (%)
- NP NON PLASTIC

REVISIONS				DRAWN BY		DESIGNED BY		CHECKED BY		APPROVED BY		ENGINEER OF RECORD			AA4 (SEGMENTAL/BULB-T)			BRIDGE NO. 100711		
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	ENGINEER OF RECORD: PROFESSIONAL SERVICE INDUSTRIES, INC. 5801 BENJAMIN CENTER DR., SUITE 112 TAMPA, FL 33634 (813) 886-1075 FLORIDA ENGINEERING CERTIFICATE OF AUTHORIZATION No. 3684 CHING L. KUO, Ph.D., P.E. FLORIDA LICENSE No. 36115			FLORIDA DEPARTMENT OF TRANSPORTATION ROAD NO. COUNTY FINANCIAL PROJECT ID SR 400 HILLSBOROUGH 258415-1-52-01			SHEET TITLE: REPORT OF CORE BORINGS (8 OF 24) PROJECT NAME: 1-4/LEE ROY SELMON EXPRESSWAY INTERCHANGE SHEET NO. B9-37		

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G5-23.003, F.A.C.

LEGEND

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- (SM), BROWN TO DARK BROWN SILTY FINE SAND
- (SC), DARK BROWN TO GRAY CLAYEY FINE SAND
- (CL/CH), GRAY-BROWN OR BLUE-GREEN SANDY CLAY
- (WH), HIGHLY TO COMPLETELY WEATHERED TAN LIMESTONE
- (PT), DARK BROWN TO BLACK SANDY PEAT
- (WS), SLIGHTLY WEATHERED TAN LIMESTONE/DOLOMITE
- (CL), LIGHT GRAY TO BROWN SANDY CLAY
- (SM-SC), BROWN TO GRAY SLIGHTLY SILTY OR CLAYEY FINE SAND
- CHERT
- (ML/MH), TAN TO DARK GRAY SLIGHTLY SANDY SILT

- A WITH LIMESTONE
- B WITH CEMENTED SAND
- C WITH SILT AND CLAY
- D WITH BROKEN GLASS/DEBRIS
- E WITH SUSPECT CONTAMINATION ODOR
- F WITH TRACE OF PHOSPHATE
- G WITH SHELL FRAGMENTS
- H PARTIALLY INDURATED
- I WITH TRACE ORGANICS
- J WITH CHERT

ENVIRONMENTAL CLASSIFICATION

SUBSTRUCTURE: EXTREMELY AGGRESSIVE
SUPERSTRUCTURE: EXTREMELY AGGRESSIVE

SOIL

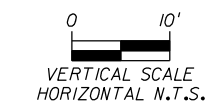
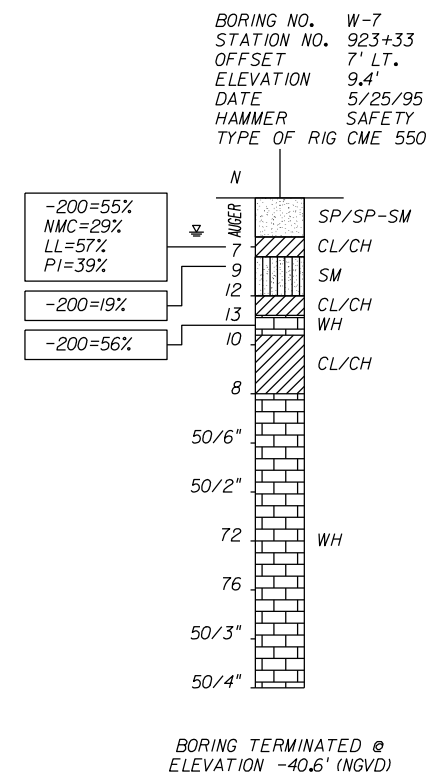
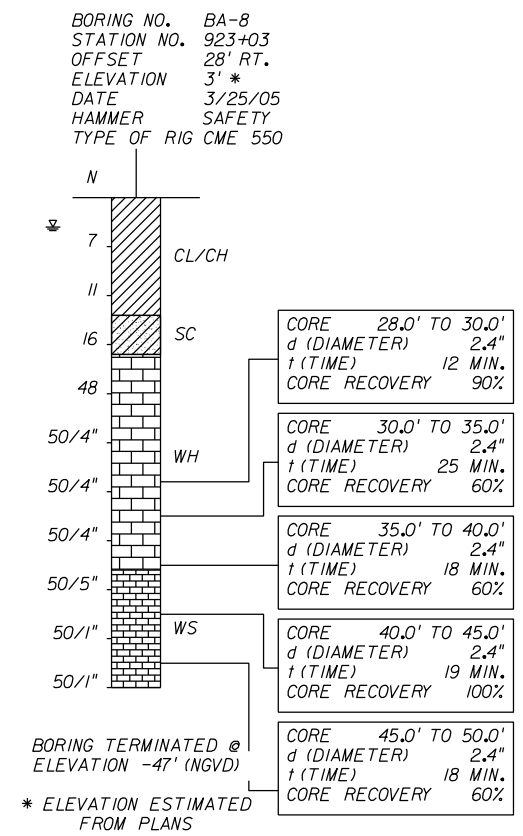
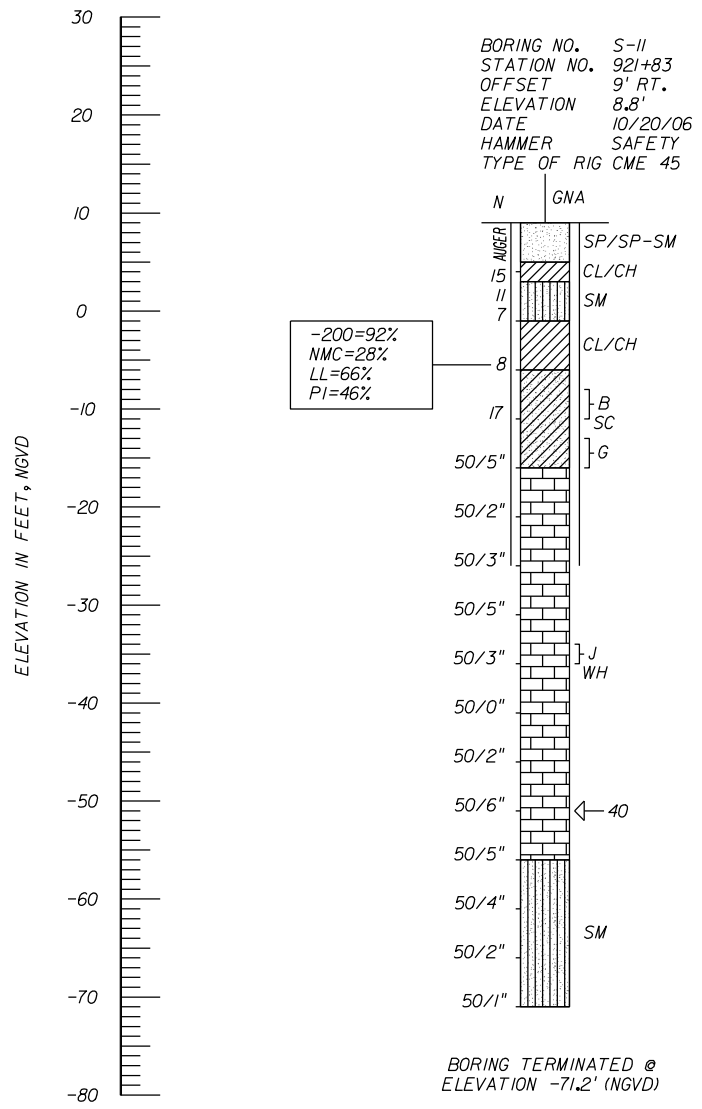
RESISTIVITY: 90 - 26,000 OHMS-CM
CHLORIDES: < 10 - 5,500 PPM
SULFATES: 0 - 3,462 PPM
pH: 3.00 - 9.05

WATER

RESISTIVITY: 27 - 3,200 OHMS-CM
CHLORIDES: 45 - 16,230 PPM
SULFATES: 20 - 3,520 PPM
pH: 6.94 - 7.40

GRANULAR MATERIALS-RELATIVE DENSITY	SPT (BLOWS/FT.)
VERY LOOSE	LESS THAN 4
LOOSE	5-10
MEDIUM	11-30
DENSE	31-50
VERY DENSE	GREATER THAN 50

SILTS AND CLAYS CONSISTENCY	SPT (BLOWS/FT.)
VERY SOFT	LESS THAN 2
SOFT	3-4
FIRM	5-8
STIFF	9-15
VERY STIFF	16-30
HARD	GREATER THAN 30



STANDARD PENETRATION TEST

NUMBERS TO THE LEFT OF BORINGS INDICATE SPT VALUE FOR 12" PENETRATION. (UNLESS OTHERWISE NOTED.)

ON THE LEFT SIDE OF A SOIL PROFILE INDICATES THE SAMPLER FELL UNDER THE WEIGHT OF ROD AND HAMMER

NSR NO SAMPLE RECOVERED

|| CASING USED

← LOSS OF CIRCULATION (%)

← RECOVERY OF CIRCULATION (%)

█ SHELBY TUBE SAMPLE LOCATION

CORE DATA

d ROCK CORE DIAMETER (INCHES)

t ROCK CORE TIME

RQD ROCK QUALITY DESIGNATION

γ UNIT WEIGHT (PCF)

q_u UNCONFINED COMPRESSION (PSI)

q_{st} SPLIT TENSILE STRENGTH (PSI)

LAB RESULTS

-200 FINES PASSING NO. 200 SIEVE (%)

NMC NATURAL MOISTURE CONTENT (%)

OC ORGANIC CONTENT (%)

LL LIQUID LIMIT (%)

PI PLASTICITY INDEX (%)

NP NON PLASTIC

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

ENGINEER OF RECORD:
PROFESSIONAL SERVICE INDUSTRIES, INC.
5801 BENJAMIN CENTER DR., SUITE 112
TAMPA, FL 33634 (813) 886-1075
FLORIDA ENGINEERING CERTIFICATE OF AUTHORIZATION No. 3684
CHING L. KUO, P.H.D., P.E.
FLORIDA LICENSE No. 36115

AA4 (SEGMENTAL/BULB-T)		
FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 400	HILLSBOROUGH	258415-1-52-01

BRIDGE NO. 100711	
REPORT OF CORE BORINGS (9 OF 24)	
PROJECT NAME:	SHEET NO.
1-4/LEE ROY SELMON EXPRESSWAY INTERCHANGE	B9-38

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G5-23.003, F.A.C.

LEGEND

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- (SM), BROWN TO DARK BROWN SILTY FINE SAND
- (SC), DARK BROWN TO GRAY CLAYEY FINE SAND
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- (WH), HIGHLY TO COMPLETELY WEATHERED TAN LIMESTONE
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- CHERT
- (ML/MH), TAN TO DARK GRAY SLIGHTLY SANDY SILT

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- E WITH SUSPECT CONTAMINATION ODOR
- F WITH TRACE OF PHOSPHATE
- G WITH SHELL FRAGMENTS
- H PARTIALLY INDURATED
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- J WITH CHERT

ENVIRONMENTAL CLASSIFICATION

SUBSTRUCTURE: EXTREMELY AGGRESSIVE
SUPERSTRUCTURE: EXTREMELY AGGRESSIVE

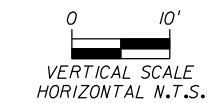
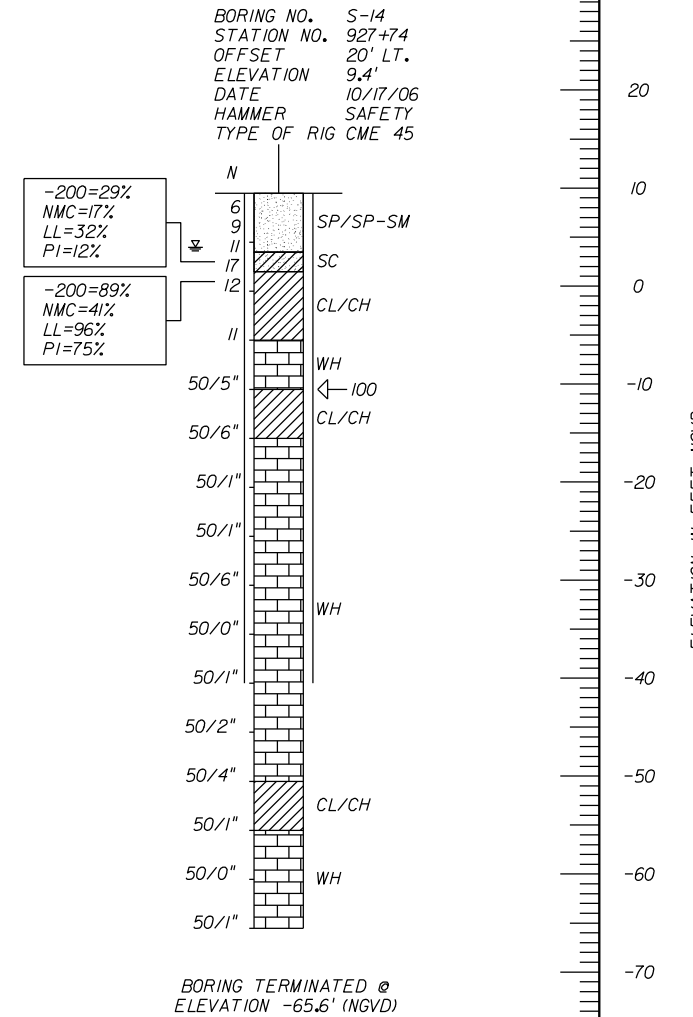
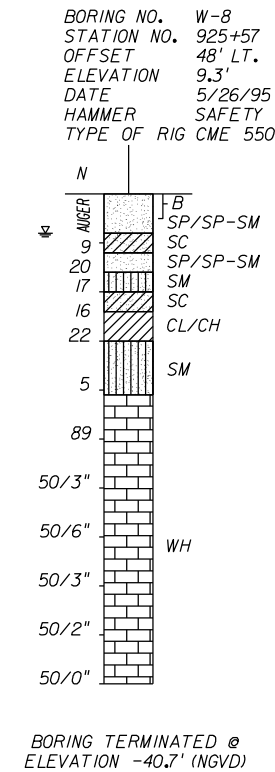
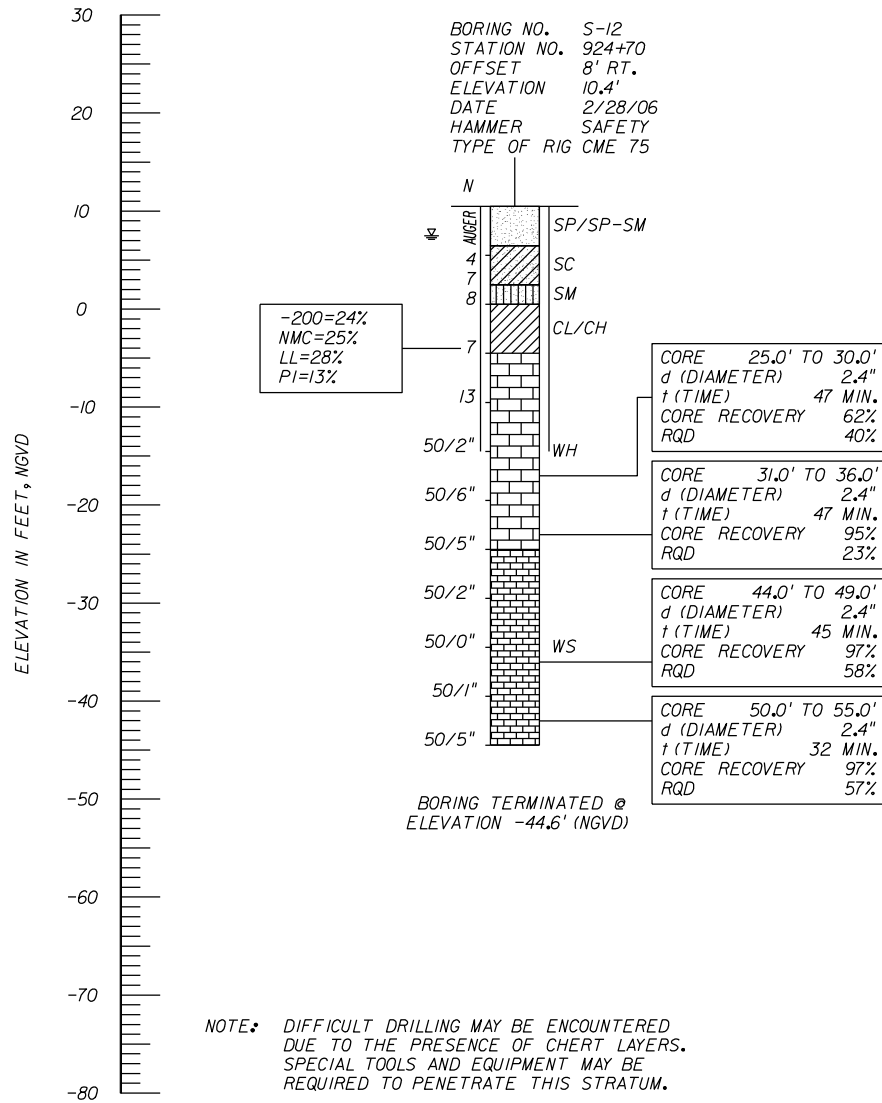
SOIL

RESISTIVITY: 90 - 26,000 OHMS-CM
CHLORIDES: < 10 - 5,500 PPM
SULFATES: 0 - 3,462 PPM
pH: 3.00 - 9.05

WATER

RESISTIVITY: 27 - 3,200 OHMS-CM
CHLORIDES: 45 - 16,230 PPM
SULFATES: 20 - 3,520 PPM
pH: 6.94 - 7.40

GRANULAR MATERIALS- RELATIVE DENSITY	SPT (BLOWS/FT.)
VERY LOOSE	LESS THAN 4
LOOSE	5-10
MEDIUM	11-30
DENSE	31-50
VERY DENSE	GREATER THAN 50
SILTS AND CLAYS CONSISTENCY	SPT (BLOWS/FT.)
VERY SOFT	LESS THAN 2
SOFT	3-4
FIRM	5-8
STIFF	9-15
VERY STIFF	16-30
HARD	GREATER THAN 30



NOTE: DIFFICULT DRILLING MAY BE ENCOUNTERED DUE TO THE PRESENCE OF CHERT LAYERS. SPECIAL TOOLS AND EQUIPMENT MAY BE REQUIRED TO PENETRATE THIS STRATUM.

STANDARD PENETRATION TEST

NUMBERS TO THE LEFT OF BORINGS INDICATE SPT VALUE FOR 12" PENETRATION. (UNLESS OTHERWISE NOTED.)

50/6" FIFTY BLOWS FOR SIX INCHES

WATER TABLE

GROUNDWATER LEVEL NOT APPARENT

ON THE LEFT SIDE OF A SOIL PROFILE INDICATES THE SAMPLER FELL UNDER THE WEIGHT OF ROD

ON THE LEFT SIDE OF A SOIL PROFILE INDICATES THE SAMPLER FELL UNDER THE WEIGHT OF ROD AND HAMMER

NO SAMPLE RECOVERED

CASING USED

LOSS OF CIRCULATION (%)

RECOVERY OF CIRCULATION (%)

SHELBY TUBE SAMPLE LOCATION

CORE DATA

d ROCK CORE DIAMETER (INCHES)

t ROCK CORE TIME

RQD ROCK QUALITY DESIGNATION

γ UNIT WEIGHT (PCF)

qu UNCONFINED COMPRESSION (PSI)

qst SPLIT TENSILE STRENGTH (PSI)

LAB RESULTS

-200 FINES PASSING NO. 200 SIEVE (%)

NMC NATURAL MOISTURE CONTENT (%)

OC ORGANIC CONTENT (%)

LL LIQUID LIMIT (%)

PI PLASTICITY INDEX (%)

NP NON PLASTIC

REVISIONS						DRAWN BY			ENGINEER OF RECORD PROFESSIONAL SERVICE INDUSTRIES, INC. 5801 BENJAMIN CENTER DR., SUITE 112 TAMPA, FL 33634 (813) 886-1075 FLORIDA ENGINEERING CERTIFICATE OF AUTHORIZATION No. 3684 CHING L. KUO, P.D., P.E. FLORIDA LICENSE No. 36115	AA4 (SEGMENTAL/BULB-T)			BRIDGE NO. 100711	
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DWG	DATE	DATE		ROAD NO.	COUNTY	FINANCIAL PROJECT ID	REPORT OF CORE BORINGS (10 OF 24)	
						ALG	11/08		SR 400	HILLSBOROUGH	258415-1-52-01	PROJECT NAME: 1-4/LEE ROY SELMON EXPRESSWAY INTERCHANGE		
													SHEET NO. B9-39	

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G5-23.003, F.A.C.

LEGEND

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ENVIRONMENTAL CLASSIFICATION

SUBSTRUCTURE: EXTREMELY AGGRESSIVE
 SUPERSTRUCTURE: EXTREMELY AGGRESSIVE

SOIL

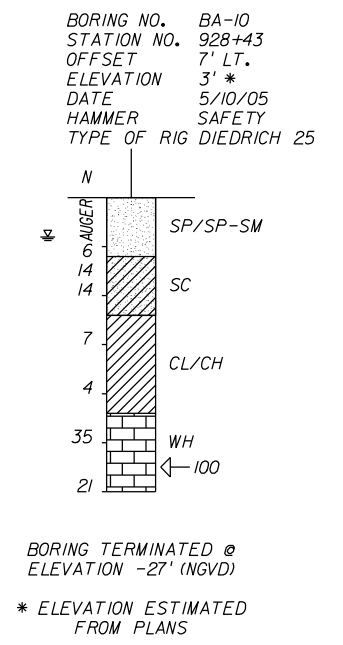
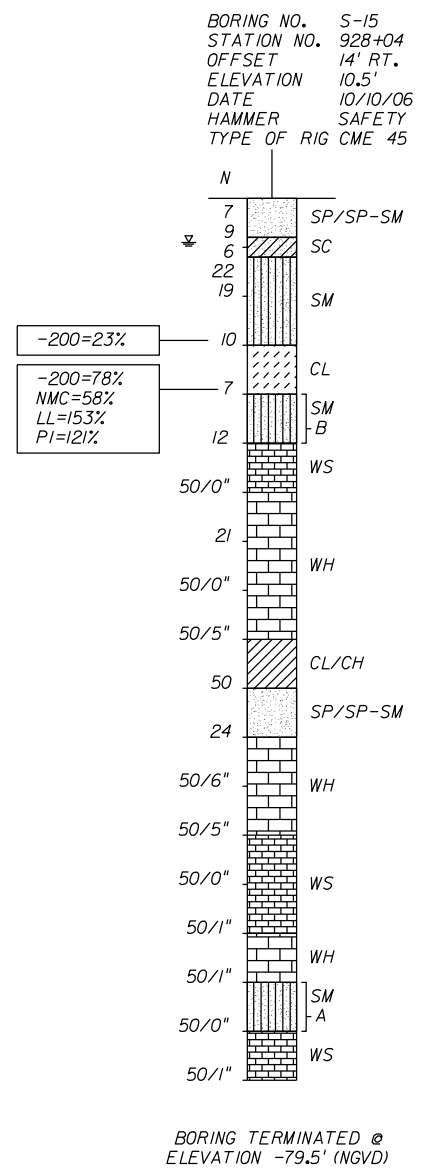
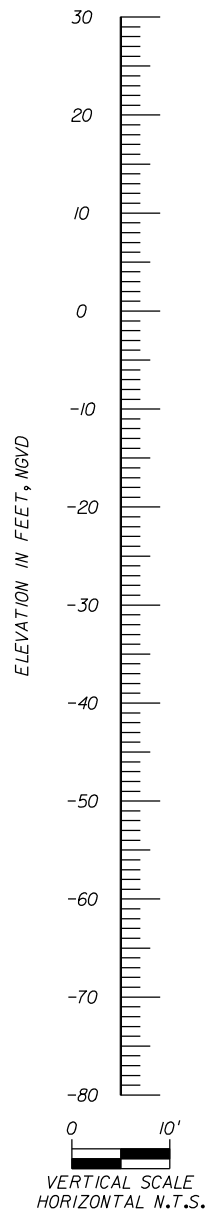
RESISTIVITY: 90 - 26,000 OHMS-CM
 CHLORIDES: < 10 - 5,500 PPM
 SULFATES: 0 - 3,462 PPM
 pH: 3.00 - 9.05

WATER

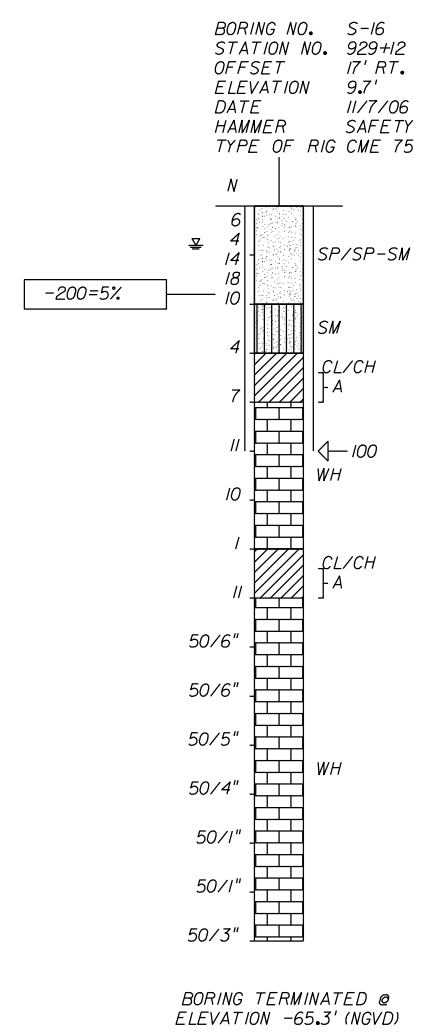
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CASING USED

LOSS OF CIRCULATION (%)

RECOVERY OF CIRCULATION (%)

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q_u UNCONFINED COMPRESSION (PSI)

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-200 FINES PASSING NO. 200 SIEVE (%)

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LL LIQUID LIMIT (%)

PI PLASTICITY INDEX (%)

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REVISIONS				NAMES		DATES		ENGINEER OF RECORD			SHEET TITLE		
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	ENGINEER OF RECORD: PROFESSIONAL SERVICE INDUSTRIES, INC. 5801 BENJAMIN CENTER DR., SUITE 112 TAMPA, FL 33634 (813) 886-1075 FLORIDA ENGINEERING CERTIFICATE OF AUTHORIZATION No. 3684 CHING L. KUO, Ph.D., P.E. FLORIDA LICENSE No. 36115			BRIDGE NO. 100711 REPORT OF CORE BORINGS (11 OF 24)		
				DRAWN BY		11/08		FLORIDA DEPARTMENT OF TRANSPORTATION			ROAD NO. COUNTY FINANCIAL PROJECT ID		
				CHECKED BY		ALG 11/08		SR 400 HILLSBOROUGH 258415-1-52-01			PROJECT NAME: SHEET NO.		
				DESIGNED BY							1-4/LEE ROY SELMON EXPRESSWAY INTERCHANGE		
				CHECKED BY							B9-40		
				APPROVED BY		CHING L. KUO, Ph.D., P.E.							

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LEGEND

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- (SC), DARK BROWN TO GRAY CLAYEY FINE SAND
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- (CL), LIGHT GRAY TO BROWN SANDY CLAY
- (SM-SC), BROWN TO GRAY SLIGHTLY SILTY OR CLAYEY FINE SAND
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- J WITH CHERT

ENVIRONMENTAL CLASSIFICATION

SUBSTRUCTURE: EXTREMELY AGGRESSIVE
 SUPERSTRUCTURE: EXTREMELY AGGRESSIVE

SOIL

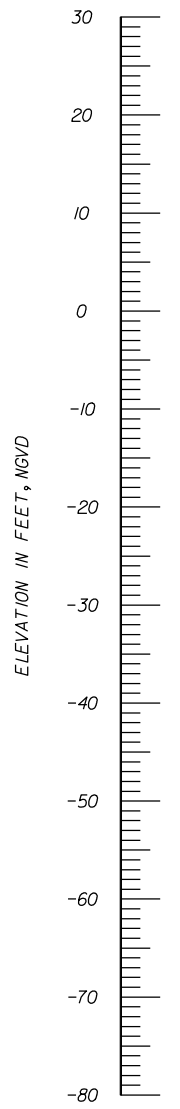
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WATER

RESISTIVITY: 27 - 3,200 OHMS-CM
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 SULFATES: 20 - 3,520 PPM
 pH: 6.94 - 7.40

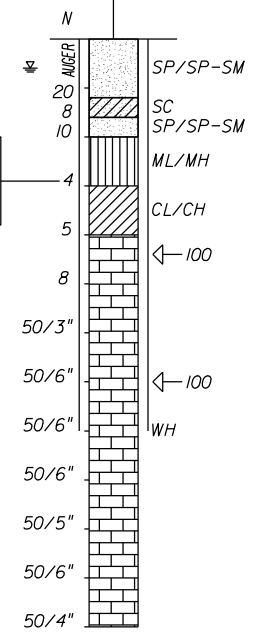
GRANULAR MATERIALS-RELATIVE DENSITY	SPT (BLOWS/FT.)
VERY LOOSE	LESS THAN 4
LOOSE	5-10
MEDIUM	11-30
DENSE	31-50
VERY DENSE	GREATER THAN 50

SILTS AND CLAYS CONSISTENCY	SPT (BLOWS/FT.)
VERY SOFT	LESS THAN 2
SOFT	3-4
FIRM	5-8
STIFF	9-15
VERY STIFF	16-30
HARD	GREATER THAN 30



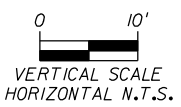
-200=25%
 NMC=35%
 LL=42%
 PI=21%

BORING NO. S-17
 STATION NO. 929+79
 OFFSET 11' RT.
 ELEVATION 10.3'
 DATE 11/10/06
 HAMMER SAFETY
 TYPE OF RIG CME 75

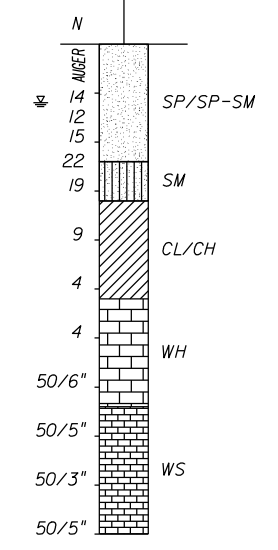


BORING TERMINATED @ ELEVATION -49.7' (NGVD)

NOTE: DIFFICULT DRILLING MAY BE ENCOUNTERED DUE TO THE PRESENCE OF CHERT LAYERS. SPECIAL TOOLS AND EQUIPMENT MAY BE REQUIRED TO PENETRATE THIS STRATUM.



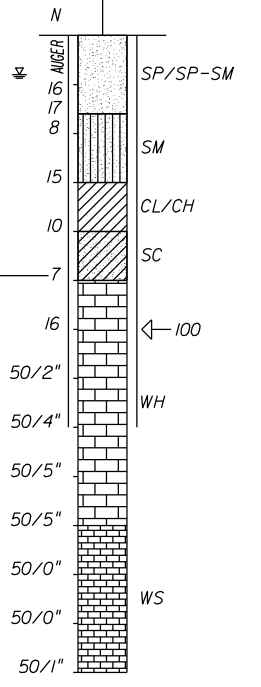
BORING NO. W-10
 STATION NO. 930+77
 OFFSET 57' LT.
 ELEVATION 10.0'
 DATE 5/29/95
 HAMMER SAFETY
 TYPE OF RIG CME 550



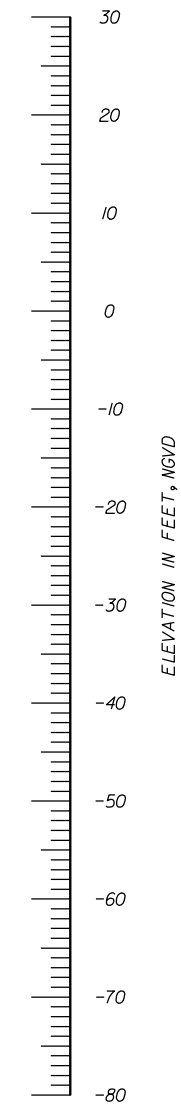
BORING TERMINATED @ ELEVATION -40.0' (NGVD)

-200=22%

BORING NO. S-19
 STATION NO. 931+35
 OFFSET 12' RT.
 ELEVATION 12.0'
 DATE 10/10/06
 HAMMER SAFETY
 TYPE OF RIG CME 45



BORING TERMINATED @ ELEVATION -53.0' (NGVD)



STANDARD PENETRATION TEST

NUMBERS TO THE LEFT OF BORINGS INDICATE SPT VALUE FOR 12" PENETRATION. (UNLESS OTHERWISE NOTED.)

50/6" FIFTY BLOWS FOR SIX INCHES

WATER TABLE

GROUNDWATER LEVEL NOT APPARENT

ON THE LEFT SIDE OF A SOIL PROFILE INDICATES THE SAMPLER FELL UNDER THE WEIGHT OF ROD

ON THE LEFT SIDE OF A SOIL PROFILE INDICATES THE SAMPLER FELL UNDER THE WEIGHT OF ROD AND HAMMER

NO SAMPLE RECOVERED

CASING USED

LOSS OF CIRCULATION (%)

RECOVERY OF CIRCULATION (%)

SHELBY TUBE SAMPLE LOCATION

CORE DATA

d ROCK CORE DIAMETER (INCHES)

t ROCK CORE TIME

RQD ROCK QUALITY DESIGNATION

γ UNIT WEIGHT (PCF)

q_u UNCONFINED COMPRESSION (PSI)

q_{st} SPLIT TENSILE STRENGTH (PSI)

LAB RESULTS

-200 FINES PASSING NO. 200 SIEVE (%)

NMC NATURAL MOISTURE CONTENT (%)

OC ORGANIC CONTENT (%)

LL LIQUID LIMIT (%)

PI PLASTICITY INDEX (%)

NP NON PLASTIC

DATE		BY		DESCRIPTION		DATE		BY		DESCRIPTION		DRAWN BY		DMS		11/08		CHECKED BY		ALG		11/08		DESIGNED BY		.		.		CHECKED BY		.		.		APPROVED BY		CHING L. KUO, Ph.D., P.E.		ENGINEER OF RECORD		PROFESSIONAL SERVICE INDUSTRIES, INC.		5801 BENJAMIN CENTER DR., SUITE 112		TAMPA, FL 33634		(813) 886-1075		FLORIDA ENGINEERING CERTIFICATE OF AUTHORIZATION No. 3684		CHING L. KUO, Ph.D., P.E.		FLORIDA LICENSE No. 36115		AA4 (SEGMENTAL/BULB-T)		FLORIDA DEPARTMENT OF TRANSPORTATION		ROAD NO.		SR 400		COUNTY		HILLSBOROUGH		FINANCIAL PROJECT ID		258415-1-52-01		SHEET TITLE		REPORT OF CORE BORINGS (12 OF 24)		PROJECT NAME		1-4/LEE ROY SELMON EXPRESSWAY INTERCHANGE		SHEET NO.		B9-41	
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NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G5-23.003, F.A.C.

LEGEND

- (SP/SP-SM), GRAY-BROWN TO LIGHT TAN-SLIGHTLY SILTY FINE SAND TO FINE SAND
 - (SM), BROWN TO DARK BROWN SILTY FINE SAND
 - (SC), DARK BROWN TO GRAY CLAYEY FINE SAND
 - (CL/CH), GRAY-BROWN OR BLUE-GREEN SANDY CLAY
 - (WH), HIGHLY TO COMPLETELY WEATHERED TAN LIMESTONE
 - (PT), DARK BROWN TO BLACK SANDY PEAT
 - (WS), SLIGHTLY WEATHERED TAN LIMESTONE/DOLOMITE
 - (CL), LIGHT GRAY TO BROWN SANDY CLAY
 - (SM-SC), BROWN TO GRAY SLIGHTLY SILTY OR CLAYEY FINE SAND
 - CHERT
 - (ML/MH), TAN TO DARK GRAY SLIGHTLY SANDY SILT
- A WITH LIMESTONE
B WITH CEMENTED SAND
C WITH SILT AND CLAY
D WITH BROKEN GLASS/DEBRIS
E WITH SUSPECT CONTAMINATION ODOR
- F WITH TRACE OF PHOSPHATE
G WITH SHELL FRAGMENTS
H PARTIALLY INDURATED
I WITH TRACE ORGANICS
J WITH CHERT

ENVIRONMENTAL CLASSIFICATION

SUBSTRUCTURE: EXTREMELY AGGRESSIVE
SUPERSTRUCTURE: EXTREMELY AGGRESSIVE

SOIL

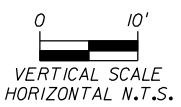
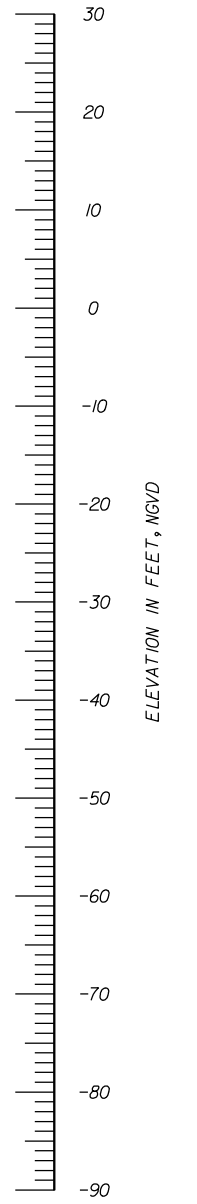
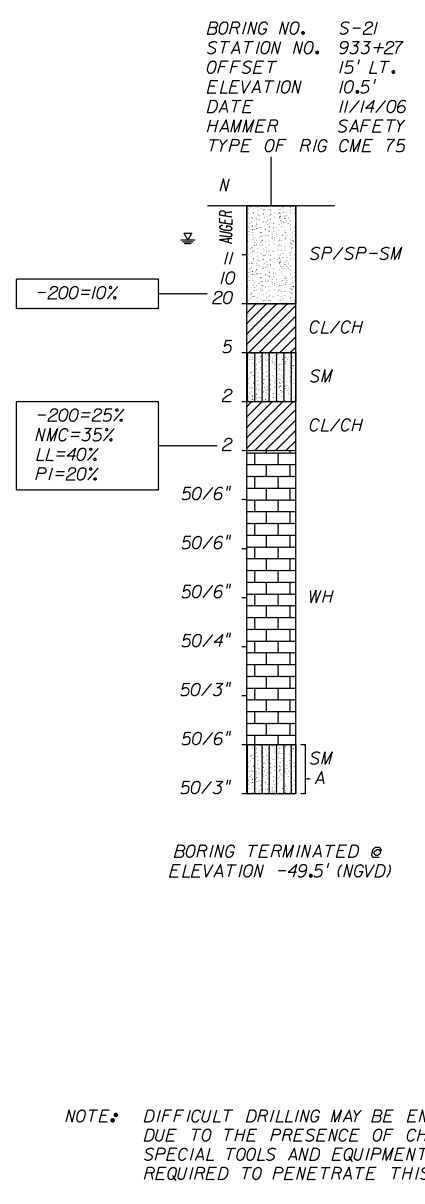
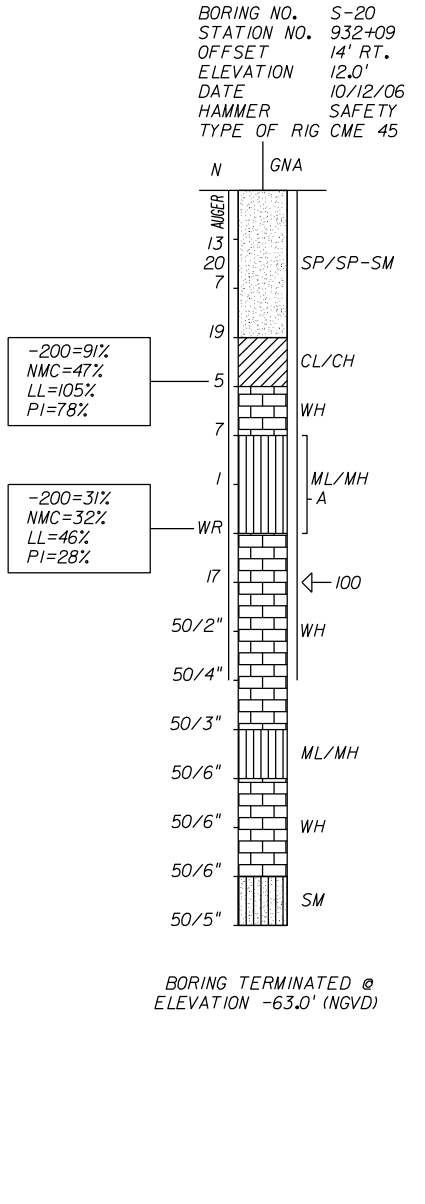
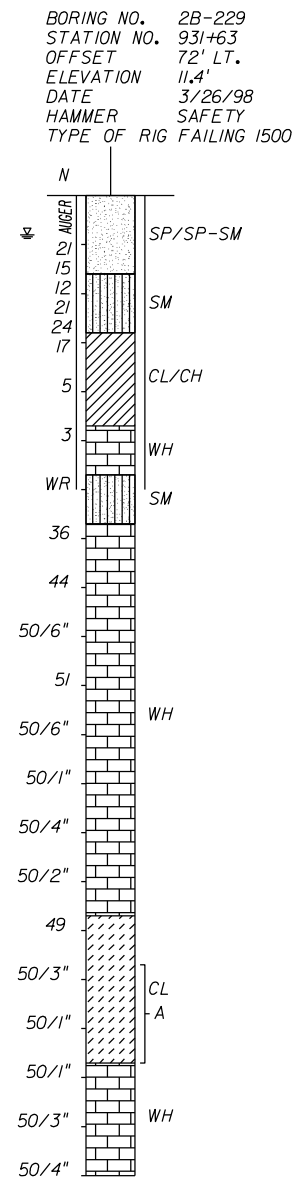
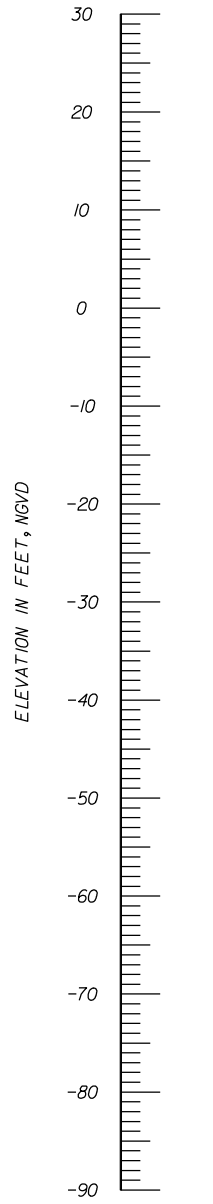
RESISTIVITY: 90 - 26,000 OHMS-CM
CHLORIDES: < 10 - 5,500 PPM
SULFATES: 0 - 3,462 PPM
pH: 3.00 - 9.05

WATER

RESISTIVITY: 27 - 3,200 OHMS-CM
CHLORIDES: 45 - 16,230 PPM
SULFATES: 20 - 3,520 PPM
pH: 6.94 - 7.40

GRANULAR MATERIALS-RELATIVE DENSITY	SPT (BLOWS/FT.)
VERY LOOSE	LESS THAN 4
LOOSE	5-10
MEDIUM	11-30
DENSE	31-50
VERY DENSE	GREATER THAN 50

SILTS AND CLAYS CONSISTENCY	SPT (BLOWS/FT.)
VERY SOFT	LESS THAN 2
SOFT	3-4
FIRM	5-8
STIFF	9-15
VERY STIFF	16-30
HARD	GREATER THAN 30



BORING TERMINATED @ ELEVATION -88.6' (NGVD)

BORING TERMINATED @ ELEVATION -63.0' (NGVD)

BORING TERMINATED @ ELEVATION -49.5' (NGVD)

NOTE: DIFFICULT DRILLING MAY BE ENCOUNTERED DUE TO THE PRESENCE OF CHERT LAYERS. SPECIAL TOOLS AND EQUIPMENT MAY BE REQUIRED TO PENETRATE THIS STRATUM.

STANDARD PENETRATION TEST

NUMBERS TO THE LEFT OF BORINGS INDICATE SPT VALUE FOR 12" PENETRATION. (UNLESS OTHERWISE NOTED.)

50/6" FIFTY BLOWS FOR SIX INCHES

WATER TABLE

GNA GROUNDWATER LEVEL NOT APPARENT

WR ON THE LEFT SIDE OF A SOIL PROFILE INDICATES THE SAMPLER FELL UNDER THE WEIGHT OF ROD

WH INDICATES THE SAMPLER FELL UNDER THE WEIGHT OF ROD AND HAMMER

NSR NO SAMPLE RECOVERED

CASING USED

LOSS OF CIRCULATION (%)

RECOVERY OF CIRCULATION (%)

SHELBY TUBE SAMPLE LOCATION

CORE DATA

d ROCK CORE DIAMETER (INCHES)

t ROCK CORE TIME

RQD ROCK QUALITY DESIGNATION

γ UNIT WEIGHT (PCF)

q_u UNCONFINED COMPRESSION (PSI)

q_{st} SPLIT TENSILE STRENGTH (PSI)

LAB RESULTS

-200 FINES PASSING NO. 200 SIEVE (%)

NMC NATURAL MOISTURE CONTENT (%)

OC ORGANIC CONTENT (%)

LL LIQUID LIMIT (%)

PI PLASTICITY INDEX (%)

NP NON PLASTIC

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

ENGINEER OF RECORD:
PROFESSIONAL SERVICE INDUSTRIES, INC.
5801 BENJAMIN CENTER DR., SUITE 112
TAMPA, FL 33634 (813) 886-1075
FLORIDA ENGINEERING CERTIFICATE OF AUTHORIZATION No. 3684
CHING L. KUO, P.H.D., P.E.
FLORIDA LICENSE No. 36115

AA4 (SEGMENTAL/BULB-T)

FLORIDA DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 400	HILLSBOROUGH	258415-1-52-01

BRIDGE NO. 100711

REPORT OF CORE BORINGS (13 OF 24)

1-4/LEE ROY SELMON EXPRESSWAY INTERCHANGE

SHEET NO. B9-42

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G5-23.003, F.A.C.

LEGEND

- (SP/SP-SM), GRAY-BROWN TO LIGHT TAN-SLIGHTLY SILTY FINE SAND TO FINE SAND
 - (SM), BROWN TO DARK BROWN SILTY FINE SAND
 - (SC), DARK BROWN TO GRAY CLAYEY FINE SAND
 - (CL/CH), GRAY-BROWN OR BLUE-GREEN SANDY CLAY
 - (WH), HIGHLY TO COMPLETELY WEATHERED TAN LIMESTONE
 - (PT), DARK BROWN TO BLACK SANDY PEAT
 - (WS), SLIGHTLY WEATHERED TAN LIMESTONE/DOLOMITE
 - (CL), LIGHT GRAY TO BROWN SANDY CLAY
 - (SM-SC), BROWN TO GRAY SLIGHTLY SILTY OR CLAYEY FINE SAND
 - CHERT
 - (ML/MH), TAN TO DARK GRAY SLIGHTLY SANDY SILT
- | | |
|-----------------------------------|---------------------------|
| A WITH LIMESTONE | F WITH TRACE OF PHOSPHATE |
| B WITH CEMENTED SAND | G WITH SHELL FRAGMENTS |
| C WITH SILT AND CLAY | H PARTIALLY INDURATED |
| D WITH BROKEN GLASS/DEBRIS | I WITH TRACE ORGANICS |
| E WITH SUSPECT CONTAMINATION ODOR | J WITH CHERT |

ENVIRONMENTAL CLASSIFICATION

SUBSTRUCTURE: EXTREMELY AGGRESSIVE
SUPERSTRUCTURE: EXTREMELY AGGRESSIVE

SOIL

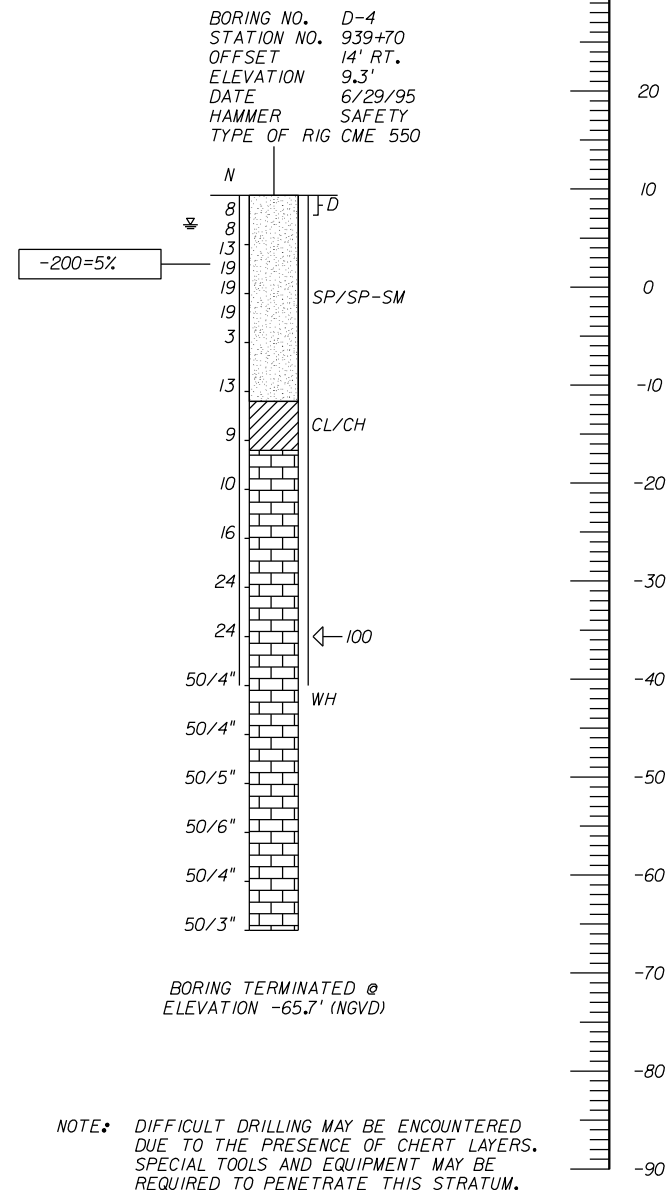
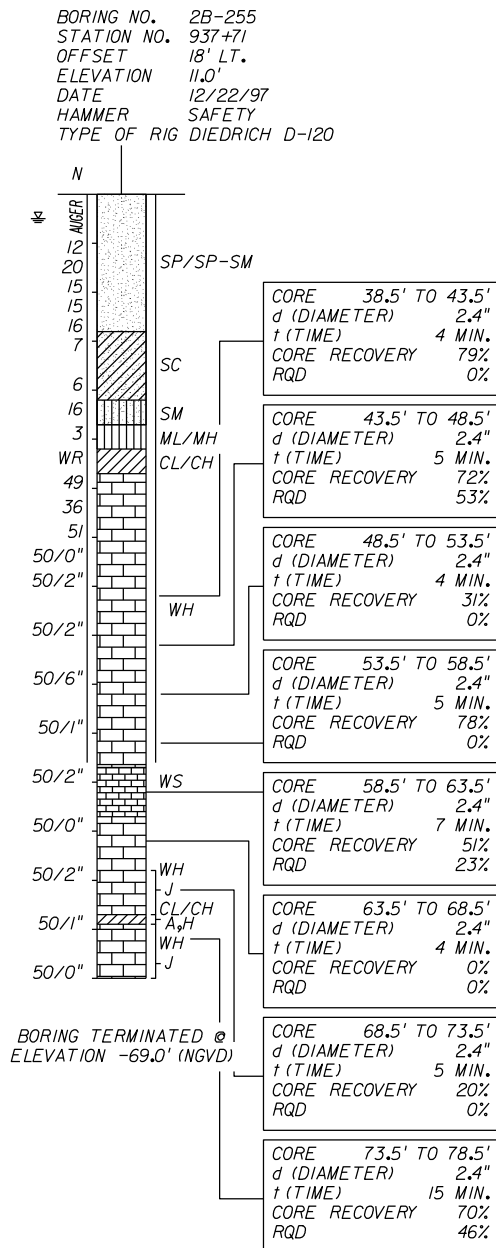
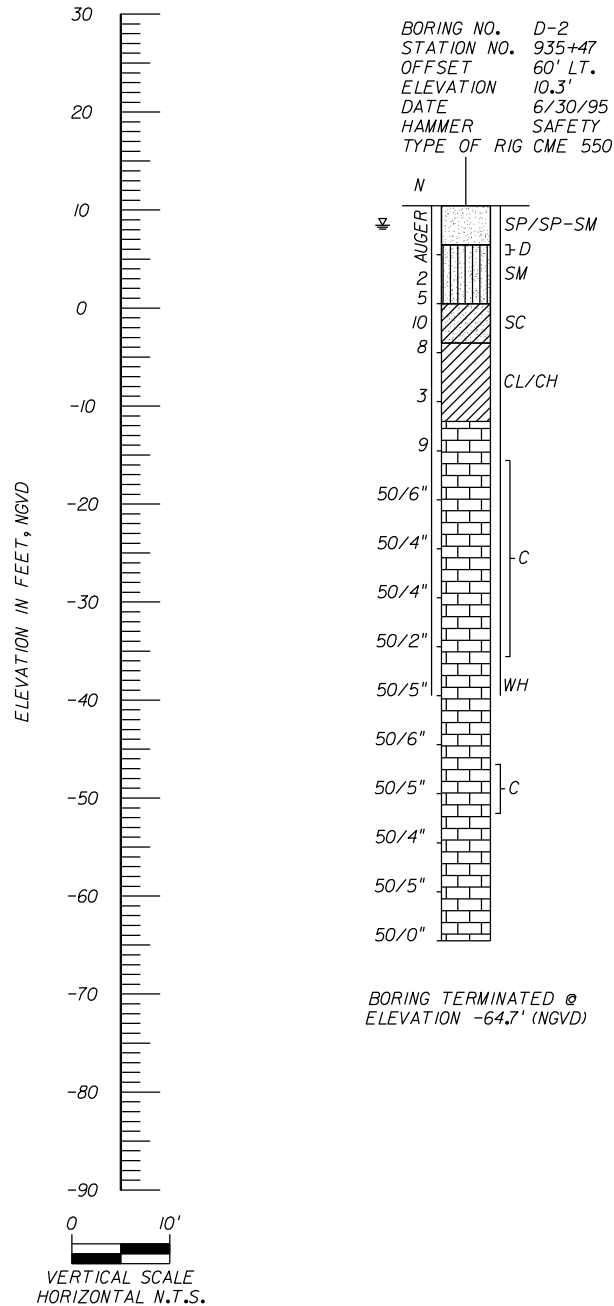
RESISTIVITY: 90 - 26,000 OHMS-CM
CHLORIDES: < 10 - 5,500 PPM
SULFATES: 0 - 3,462 PPM
pH: 3.00 - 9.05

WATER

RESISTIVITY: 27 - 3,200 OHMS-CM
CHLORIDES: 45 - 16,230 PPM
SULFATES: 20 - 3,520 PPM
pH: 6.94 - 7.40

GRANULAR MATERIALS-RELATIVE DENSITY	SPT (BLOWS/FT.)
VERY LOOSE	LESS THAN 4
LOOSE	5-10
MEDIUM	11-30
DENSE	31-50
VERY DENSE	GREATER THAN 50

SILTS AND CLAYS CONSISTENCY	SPT (BLOWS/FT.)
VERY SOFT	LESS THAN 2
SOFT	3-4
FIRM	5-8
STIFF	9-15
VERY STIFF	16-30
HARD	GREATER THAN 30



NOTE: DIFFICULT DRILLING MAY BE ENCOUNTERED DUE TO THE PRESENCE OF CHERT LAYERS. SPECIAL TOOLS AND EQUIPMENT MAY BE REQUIRED TO PENETRATE THIS STRATUM.

STANDARD PENETRATION TEST

NUMBERS TO THE LEFT OF BORINGS INDICATE SPT VALUE FOR 12" PENETRATION. (UNLESS OTHERWISE NOTED.)

50/6" FIFTY BLOWS FOR SIX INCHES

WATER TABLE

GROUNDWATER LEVEL NOT APPARENT

ON THE LEFT SIDE OF A SOIL PROFILE INDICATES THE SAMPLER FELL UNDER THE WEIGHT OF ROD

ON THE LEFT SIDE OF A SOIL PROFILE INDICATES THE SAMPLER FELL UNDER THE WEIGHT OF ROD AND HAMMER

NO SAMPLE RECOVERED

CASING USED

LOSS OF CIRCULATION (%)

RECOVERY OF CIRCULATION (%)

SHELBY TUBE SAMPLE LOCATION

CORE DATA

d ROCK CORE DIAMETER (INCHES)

t ROCK CORE TIME

ROCK QUALITY DESIGNATION

UNIT WEIGHT (PCF)

UNCONFINED COMPRESSION (PSI)

SPLIT TENSILE STRENGTH (PSI)

LAB RESULTS

-200 FINES PASSING NO. 200 SIEVE (%)

NATURAL MOISTURE CONTENT (%)

ORGANIC CONTENT (%)

LIQUID LIMIT (%)

PLASTICITY INDEX (%)

NON PLASTIC

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

ENGINEER OF RECORD:
PROFESSIONAL SERVICE INDUSTRIES, INC.
5801 BENJAMIN CENTER DR., SUITE 112
TAMPA, FL 33634 (813) 886-1075
FLORIDA ENGINEERING CERTIFICATE OF AUTHORIZATION No. 3684
CHING L. KUO, P.E.
FLORIDA LICENSE No. 36115

AA4 (SEGMENTAL/BULB-T)

FLORIDA DEPARTMENT OF TRANSPORTATION

ROAD NO. SR 400 COUNTY HILLSBOROUGH FINANCIAL PROJECT ID 258415-1-52-01

BRIDGE NO. 100711

REPORT OF CORE BORINGS (14 OF 24)

PROJECT NAME: 1-4/LEE ROY SELMON EXPRESSWAY INTERCHANGE

SHEET NO. B9-43

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G5-23.003, F.A.C.

LEGEND

- (SP/SP-SM), GRAY-BROWN TO LIGHT TAN-SLIGHTLY SILTY FINE SAND TO FINE SAND
- (SM), BROWN TO DARK BROWN SILTY FINE SAND
- (SC), DARK BROWN TO GRAY CLAYEY FINE SAND
- (CL/CH), GRAY-BROWN OR BLUE-GREEN SANDY CLAY
- (WH), HIGHLY TO COMPLETELY WEATHERED TAN LIMESTONE
- (PT), DARK BROWN TO BLACK SANDY PEAT
- (WS), SLIGHTLY WEATHERED TAN LIMESTONE/DOLOMITE
- (CL), LIGHT GRAY TO BROWN SANDY CLAY
- (SM-SC), BROWN TO GRAY SLIGHTLY SILTY OR CLAYEY FINE SAND
- CHERT
- (ML/MH), TAN TO DARK GRAY SLIGHTLY SANDY SILT

- A WITH LIMESTONE
- B WITH CEMENTED SAND
- C WITH SILT AND CLAY
- D WITH BROKEN GLASS/DEBRIS
- E WITH SUSPECT CONTAMINATION ODOR
- F WITH TRACE OF PHOSPHATE
- G WITH SHELL FRAGMENTS
- H PARTIALLY INDURATED
- I WITH TRACE ORGANICS
- J WITH CHERT

ENVIRONMENTAL CLASSIFICATION

SUBSTRUCTURE: EXTREMELY AGGRESSIVE
SUPERSTRUCTURE: EXTREMELY AGGRESSIVE

SOIL

RESISTIVITY: 90 - 26,000 OHMS-CM
CHLORIDES: < 10 - 5,500 PPM
SULFATES: 0 - 3,462 PPM
pH: 3.00 - 9.05

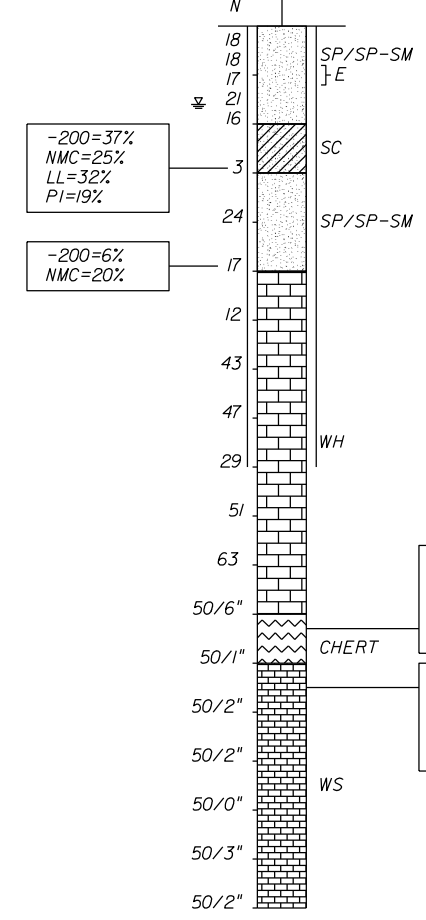
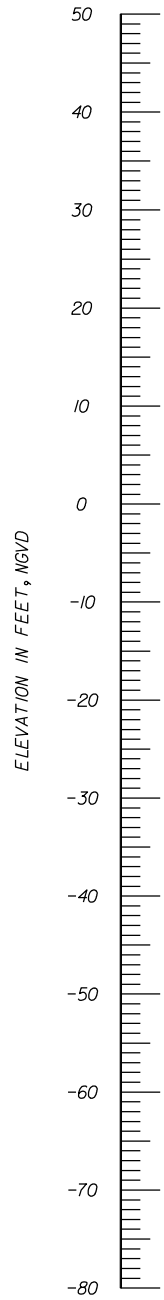
WATER

RESISTIVITY: 27 - 3,200 OHMS-CM
CHLORIDES: 45 - 16,230 PPM
SULFATES: 20 - 3,520 PPM
pH: 6.94 - 7.40

GRANULAR MATERIALS-RELATIVE DENSITY	SPT (BLOWS/FT.)
VERY LOOSE	LESS THAN 4
LOOSE	5-10
MEDIUM	11-30
DENSE	31-50
VERY DENSE	GREATER THAN 50

SILTS AND CLAYS CONSISTENCY	SPT (BLOWS/FT.)
VERY SOFT	LESS THAN 2
SOFT	3-4
FIRM	5-8
STIFF	9-15
VERY STIFF	16-30
HARD	GREATER THAN 30

BORING NO. S-23
STATION NO. 941+40
OFFSET 7' RT.
ELEVATION 43.3'
DATE 5/10/07
HAMMER SAFETY
TYPE OF RIG CME 75



-200=37%
NMC=25%
LL=32%
PI=19%

-200=6%
NMC=20%

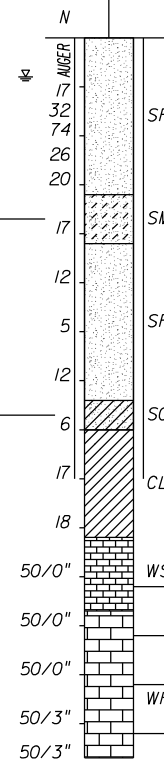
CORE 59.0' TO 64.0'
d (DIAMETER) 2.4"
t (TIME) 50 MIN.
CORE RECOVERY 80%
RQD 30%

CORE 65.0' TO 70.0'
d (DIAMETER) 2.4"
t (TIME) 36 MIN.
CORE RECOVERY 83%
RQD 37%

BORING TERMINATED @
ELEVATION -46.7' (NGVD)

NOTE: DIFFICULT DRILLING MAY BE ENCOUNTERED DUE TO THE PRESENCE OF CHERT LAYERS. SPECIAL TOOLS AND EQUIPMENT MAY BE REQUIRED TO PENETRATE THIS STRATUM.

BORING NO. B-14
STATION NO. 941+49
OFFSET 10' LT.
ELEVATION 18.6'
DATE 6/15/95
HAMMER SAFETY
TYPE OF RIG CME 550



-200=16%
NMC=19%
LL=24%
PI=5%

-200=18%
NMC=34%
LL=45%
PI=23%

CORE 53.5' TO 58.5'
d (DIAMETER) 2.4"
t (TIME) 24 MIN.
CORE RECOVERY 70%
RQD 35%
γ 136.9 PCF
q_u (57.0') 3750 PSI

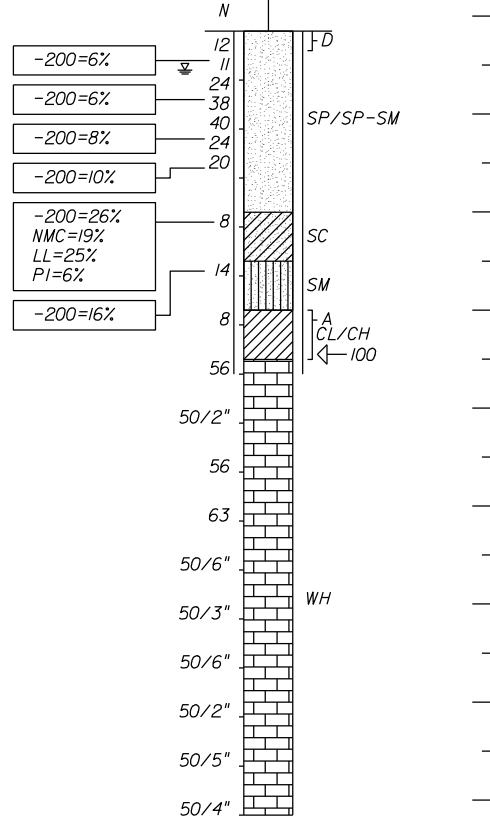
CORE 58.5' TO 63.0'
d (DIAMETER) 2.4"
t (TIME) 60 MIN.
CORE RECOVERY 50%
RQD 0%
γ 144.5 PCF
q_{st} (58.5') 750 PSI

CORE 63.0' TO 68.5'
d (DIAMETER) 2.4"
t (TIME) 35 MIN.
CORE RECOVERY 40%
RQD 0%

CORE 68.5' TO 73.5'
d (DIAMETER) 2.4"
t (TIME) 40 MIN.
CORE RECOVERY 100%
RQD 0%

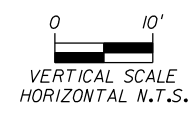
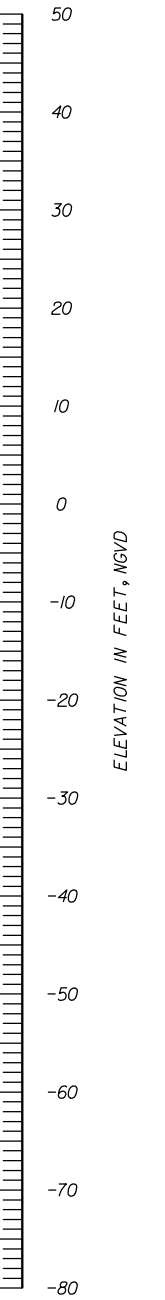
BORING TERMINATED @
ELEVATION -54.9' (NGVD)

BORING NO. 2B-232
STATION NO. 942+38
OFFSET 5' LT.
ELEVATION 8.4'
DATE 12/22/97
HAMMER SAFETY
TYPE OF RIG CME 550



-200=6%
-200=6%
-200=8%
-200=10%
-200=26%
NMC=19%
LL=25%
PI=6%
-200=16%

BORING TERMINATED @
ELEVATION -71.6' (NGVD)



- STANDARD PENETRATION TEST**
- N NUMBERS TO THE LEFT OF BORINGS INDICATE SPT VALUE FOR 12" PENETRATION. (UNLESS OTHERWISE NOTED.)
 - WH ON THE LEFT SIDE OF A SOIL PROFILE INDICATES THE SAMPLER FELL UNDER THE WEIGHT OF ROD AND HAMMER
 - NSR NO SAMPLE RECOVERED
 - || CASING USED
 - ← LOSS OF CIRCULATION (%)
 - ← RECOVERY OF CIRCULATION (%)
 - SHELBY TUBE SAMPLE LOCATION
- CORE DATA**
- d ROCK CORE DIAMETER (INCHES)
 - t ROCK CORE TIME
 - RQD ROCK QUALITY DESIGNATION
 - γ UNIT WEIGHT (PCF)
 - q_u UNCONFINED COMPRESSION (PSI)
 - q_{st} SPLIT TENSILE STRENGTH (PSI)
- LAB RESULTS**
- 200 FINES PASSING NO. 200 SIEVE (%)
 - NMC NATURAL MOISTURE CONTENT (%)
 - OC ORGANIC CONTENT (%)
 - LL LIQUID LIMIT (%)
 - PI PLASTICITY INDEX (%)
 - NP NON PLASTIC

REVISIONS				NAMES		DATES		AA4 (SEGMENTAL/BULB-T)			BRIDGE NO. 100711	
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	ROAD NO.	COUNTY	FINANCIAL PROJECT ID	PROJECT NAME	SHEET NO.
								SR 400	HILLSBOROUGH	258415-1-52-01	1-4/LEE ROY SELMON EXPRESSWAY INTERCHANGE	B9-44

ENGINEER OF RECORD:
PROFESSIONAL SERVICE INDUSTRIES, INC.
5801 BENJAMIN CENTER DR., SUITE 112
TAMPA, FL 33634 (813) 886-1075
FLORIDA ENGINEERING CERTIFICATE
OF AUTHORIZATION No. 3684
CHING L. KUO, P.H.D., P.E.
FLORIDA LICENSE No. 36115

FLORIDA DEPARTMENT OF TRANSPORTATION

REPORT OF CORE BORINGS (15 OF 24)

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G5-23.003, F.A.C.

LEGEND

- (SP/SP-SM), GRAY-BROWN TO LIGHT TAN-SLIGHTLY SILTY FINE SAND TO FINE SAND
- (SM), BROWN TO DARK BROWN SILTY FINE SAND
- (SC), DARK BROWN TO GRAY CLAYEY FINE SAND
- (CL/CH), GRAY-BROWN OR BLUE-GREEN SANDY CLAY
- (WH), HIGHLY TO COMPLETELY WEATHERED TAN LIMESTONE
- (PT), DARK BROWN TO BLACK SANDY PEAT
- (WS), SLIGHTLY WEATHERED TAN LIMESTONE/DOLomite
- (CL), LIGHT GRAY TO BROWN SANDY CLAY
- (SM-SC), BROWN TO GRAY SLIGHTLY SILTY OR CLAYEY FINE SAND
- CHERT
- (ML/MH), TAN TO DARK GRAY SLIGHTLY SANDY SILT

- A WITH LIMESTONE
- B WITH CEMENTED SAND
- C WITH SILT AND CLAY
- D WITH BROKEN GLASS/DEBRIS
- E WITH SUSPECT CONTAMINATION ODOR
- F WITH TRACE OF PHOSPHATE
- G WITH SHELL FRAGMENTS
- H PARTIALLY INDURATED
- I WITH TRACE ORGANICS
- J WITH CHERT

ENVIRONMENTAL CLASSIFICATION

SUBSTRUCTURE: EXTREMELY AGGRESSIVE
 SUPERSTRUCTURE: EXTREMELY AGGRESSIVE

SOIL

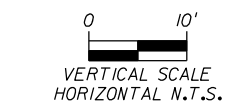
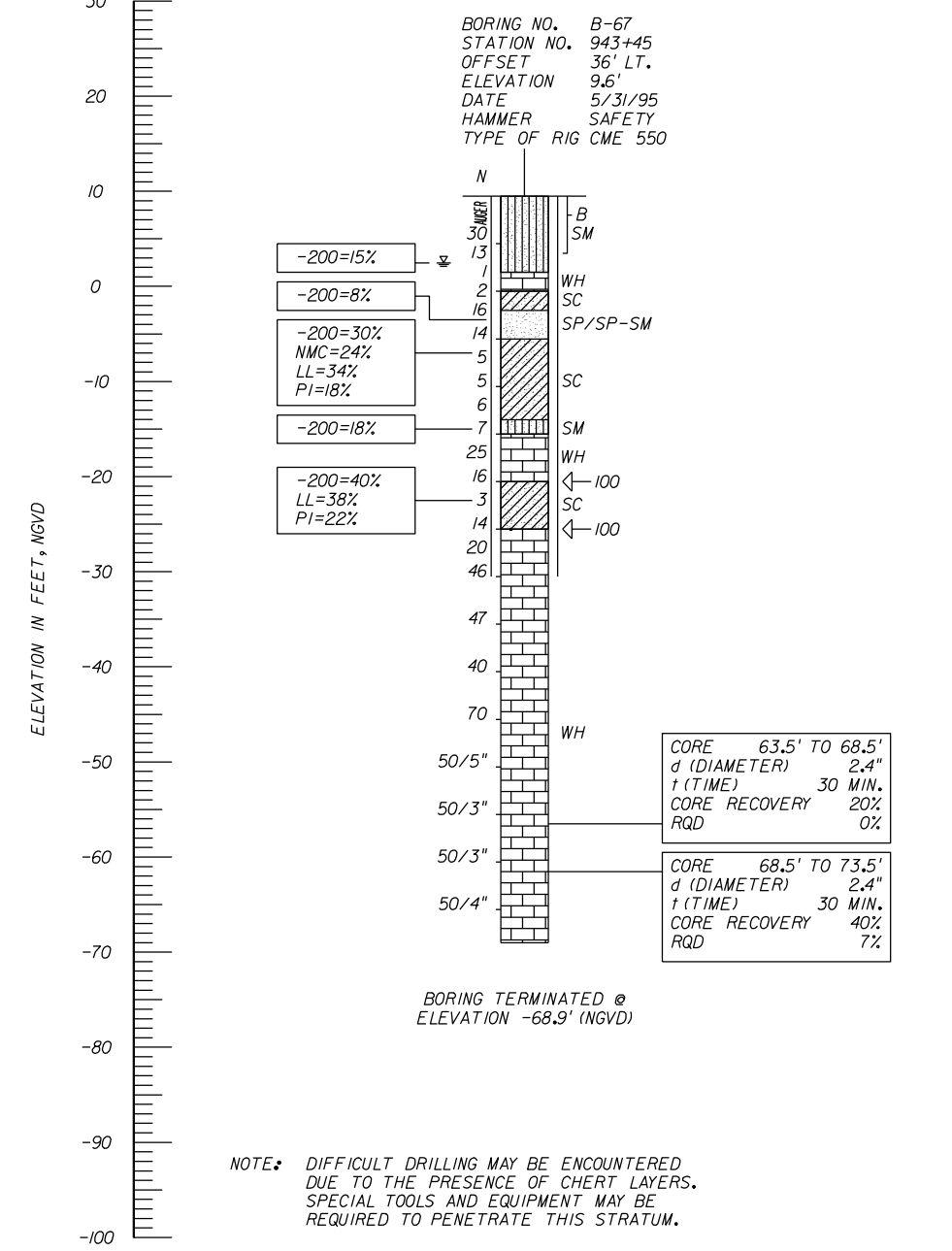
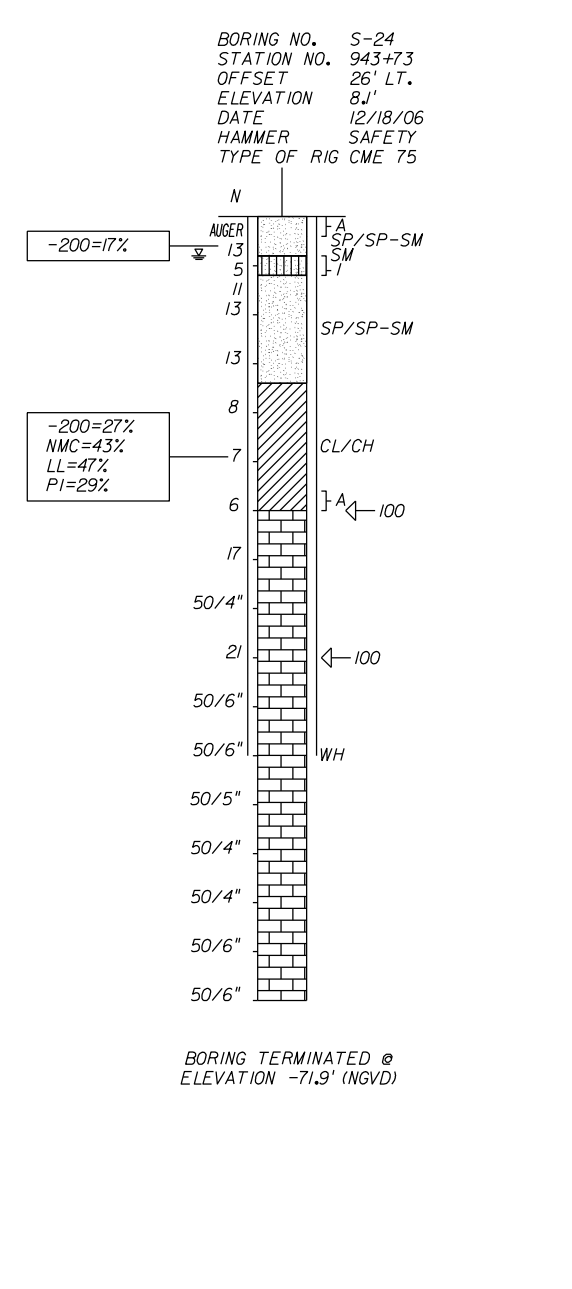
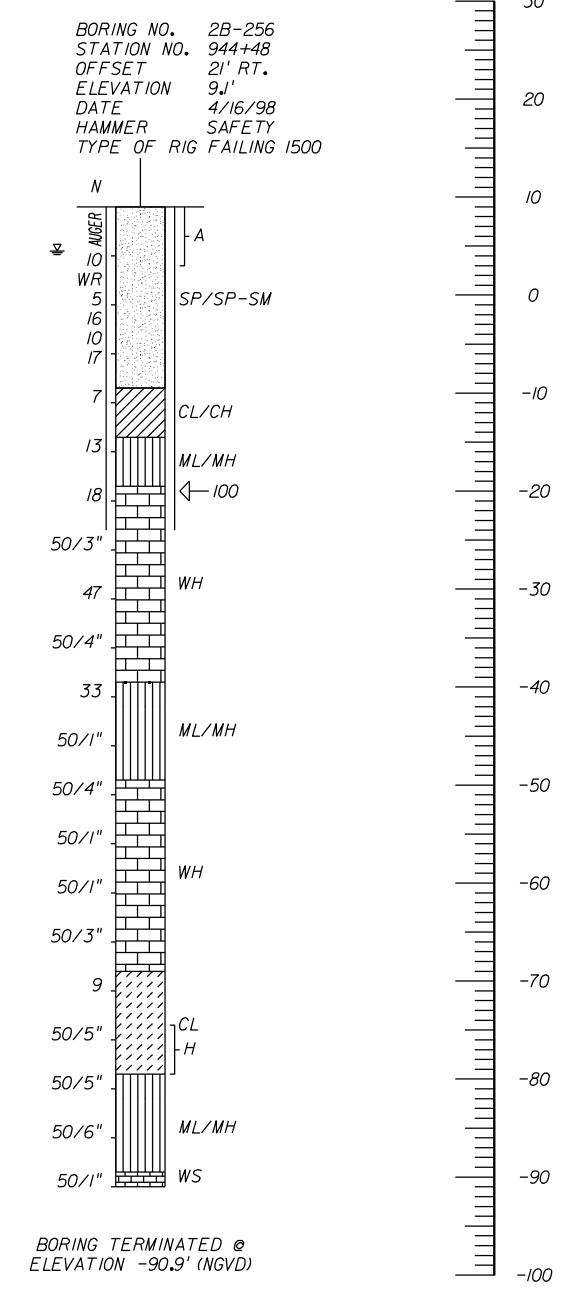
RESISTIVITY: 90 - 26,000 OHMS-CM
 CHLORIDES: < 10 - 5,500 PPM
 SULFATES: 0 - 3,462 PPM
 pH: 3.00 - 9.05

WATER

RESISTIVITY: 27 - 3,200 OHMS-CM
 CHLORIDES: 45 - 16,230 PPM
 SULFATES: 20 - 3,520 PPM
 pH: 6.94 - 7.40

GRANULAR MATERIALS-RELATIVE DENSITY	SPT (BLOWS/FT.)
VERY LOOSE	LESS THAN 4
LOOSE	5-10
MEDIUM	11-30
DENSE	31-50
VERY DENSE	GREATER THAN 50

SILTS AND CLAYS CONSISTENCY	SPT (BLOWS/FT.)
VERY SOFT	LESS THAN 2
SOFT	3-4
FIRM	5-8
STIFF	9-15
VERY STIFF	16-30
HARD	GREATER THAN 30



NOTE: DIFFICULT DRILLING MAY BE ENCOUNTERED DUE TO THE PRESENCE OF CHERT LAYERS. SPECIAL TOOLS AND EQUIPMENT MAY BE REQUIRED TO PENETRATE THIS STRATUM.

CORE 63.5' TO 68.5'
 d (DIAMETER) 2.4"
 t (TIME) 30 MIN.
 CORE RECOVERY 20%
 RQD 0%

CORE 68.5' TO 73.5'
 d (DIAMETER) 2.4"
 t (TIME) 30 MIN.
 CORE RECOVERY 40%
 RQD 7%

STANDARD PENETRATION TEST

CORE DATA

LAB RESULTS

NUMBERS TO THE LEFT OF BORINGS INDICATE SPT VALUE FOR 12" PENETRATION. (UNLESS OTHERWISE NOTED.)

WH INDICATES THE SAMPLER FELL UNDER THE WEIGHT OF ROD AND HAMMER

NSR NO SAMPLE RECOVERED

|| CASING USED

← LOSS OF CIRCULATION (%)

← RECOVERY OF CIRCULATION (%)

■ SHELBY TUBE SAMPLE LOCATION

50/6" FIFTY BLOWS FOR SIX INCHES

☼ WATER TABLE

GNA GROUNDWATER LEVEL NOT APPARENT

WR ON THE LEFT SIDE OF A SOIL PROFILE INDICATES THE SAMPLER FELL UNDER THE WEIGHT OF ROD

d ROCK CORE DIAMETER (INCHES)

t ROCK CORE TIME

RQD ROCK QUALITY DESIGNATION

γ UNIT WEIGHT (PCF)

q_u UNCONFINED COMPRESSION (PSI)

q_{st} SPLIT TENSILE STRENGTH (PSI)

-200 FINES PASSING NO. 200 SIEVE (%)

NMC NATURAL MOISTURE CONTENT (%)

OC ORGANIC CONTENT (%)

LL LIQUID LIMIT (%)

PI PLASTICITY INDEX (%)

NP NON PLASTIC

<p>AA4 (SEGMENTAL/BULB-T)</p> <p>FLORIDA DEPARTMENT OF TRANSPORTATION</p>		<p>BRIDGE NO. 100711</p> <p>REPORT OF CORE BORINGS (16 OF 24)</p>								
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	ROAD NO.	COUNTY	FINANCIAL PROJECT ID	PROJECT NAME	SHEET NO.
						SR 400	HILLSBOROUGH	258415-1-52-01	1-4/LEE ROY SELMON EXPRESSWAY INTERCHANGE	B9-45
<p>ENGINEER OF RECORD: PROFESSIONAL SERVICE INDUSTRIES, INC. 5801 BENJAMIN CENTER DR., SUITE 112 TAMPA, FL 33634 (813) 886-1075 FLORIDA ENGINEERING CERTIFICATE OF AUTHORIZATION No. 3684 CHING L. KUO, Ph.D., P.E. FLORIDA LICENSE No. 36115</p>						<p>USER: david.grove 10/28/2008 1:52:22 PM c:\e\projects\258415\2010aa4\struct\bor\100711\bor\bor1ng16.dgn</p>				

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G5-23.003, F.A.C.

LEGEND

- (SP/SP-SM), GRAY-BROWN TO LIGHT TAN-SLIGHTLY SILTY FINE SAND TO FINE SAND
 - (SM), BROWN TO DARK BROWN SILTY FINE SAND
 - (SC), DARK BROWN TO GRAY CLAYEY FINE SAND
 - (CL/CH), GRAY-BROWN OR BLUE-GREEN SANDY CLAY
 - (WH), HIGHLY TO COMPLETELY WEATHERED TAN LIMESTONE
 - (PT), DARK BROWN TO BLACK SANDY PEAT
 - (WS), SLIGHTLY WEATHERED TAN LIMESTONE/DOLOMITE
 - (CL), LIGHT GRAY TO BROWN SANDY CLAY
 - (SM-SC), BROWN TO GRAY SLIGHTLY SILTY OR CLAYEY FINE SAND
 - CHERT
 - (ML/MH), TAN TO DARK GRAY SLIGHTLY SANDY SILT
- A WITH LIMESTONE
 - B WITH CEMENTED SAND
 - C WITH SILT AND CLAY
 - D WITH BROKEN GLASS/DEBRIS
 - E WITH SUSPECT CONTAMINATION ODOR
 - F WITH TRACE OF PHOSPHATE
 - G WITH SHELL FRAGMENTS
 - H PARTIALLY INDURATED
 - I WITH TRACE ORGANICS
 - J WITH CHERT

ENVIRONMENTAL CLASSIFICATION

SUBSTRUCTURE: EXTREMELY AGGRESSIVE
SUPERSTRUCTURE: EXTREMELY AGGRESSIVE

SOIL

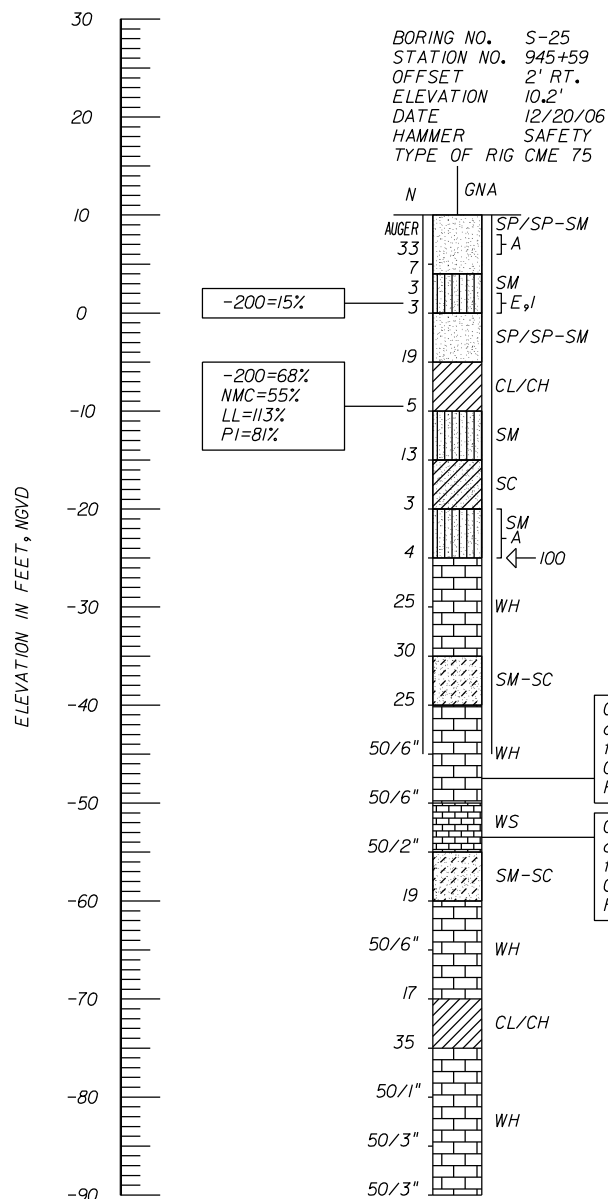
RESISTIVITY: 90 - 26,000 OHMS-CM
CHLORIDES: < 10 - 5,500 PPM
SULFATES: 0 - 3,462 PPM
pH: 3.00 - 9.05

WATER

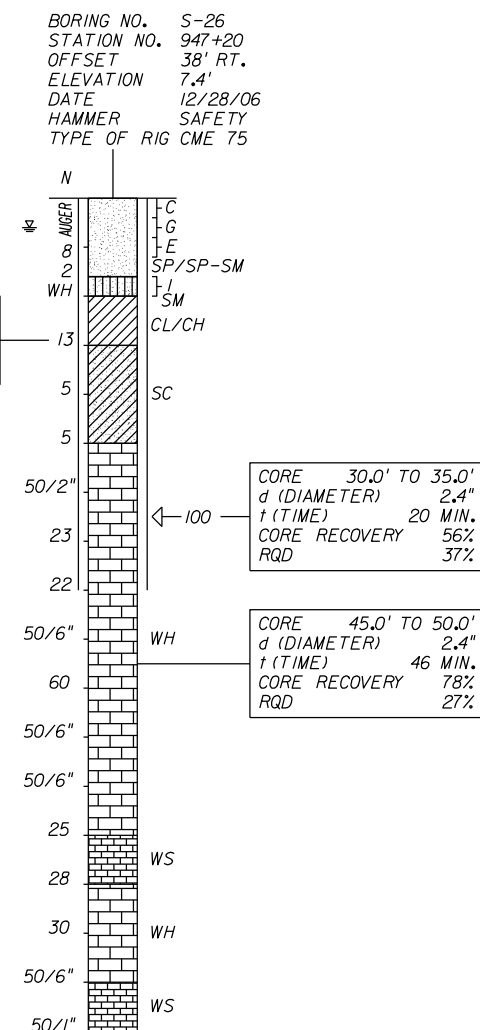
RESISTIVITY: 27 - 3,200 OHMS-CM
CHLORIDES: 45 - 16,230 PPM
SULFATES: 20 - 3,520 PPM
pH: 6.94 - 7.40

GRANULAR MATERIALS-RELATIVE DENSITY	SPT (BLOWS/FT.)
VERY LOOSE	LESS THAN 4
LOOSE	5-10
MEDIUM	11-30
DENSE	31-50
VERY DENSE	GREATER THAN 50

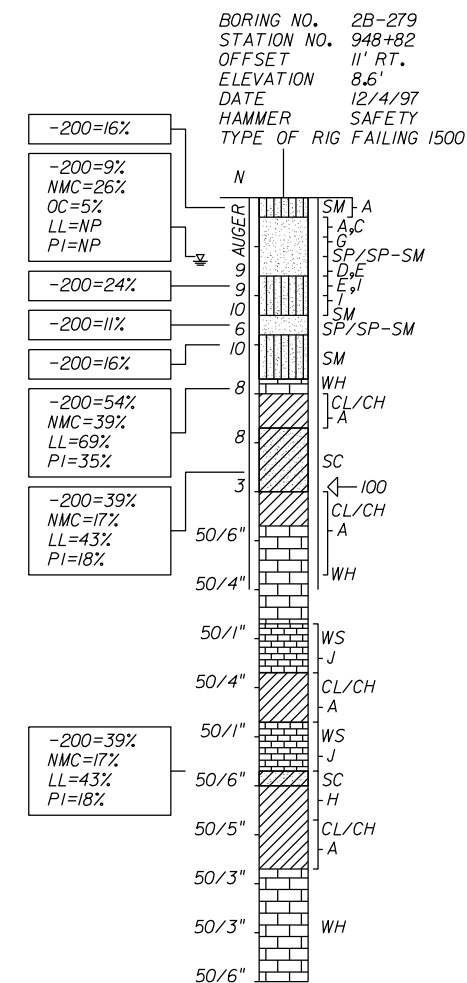
SILTS AND CLAYS CONSISTENCY	SPT (BLOWS/FT.)
VERY SOFT	LESS THAN 2
SOFT	3-4
FIRM	5-8
STIFF	9-15
VERY STIFF	16-30
HARD	GREATER THAN 30



BORING TERMINATED @ ELEVATION -89.8' (NGVD)

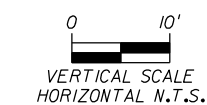


BORING TERMINATED @ ELEVATION -77.6' (NGVD)



BORING TERMINATED @ ELEVATION -71.4' (NGVD)

NOTE: DIFFICULT DRILLING MAY BE ENCOUNTERED DUE TO THE PRESENCE OF CHERT LAYERS. SPECIAL TOOLS AND EQUIPMENT MAY BE REQUIRED TO PENETRATE THIS STRATUM.



STANDARD PENETRATION TEST

NUMBERS TO THE LEFT OF BORINGS INDICATE SPT VALUE FOR 12" PENETRATION. (UNLESS OTHERWISE NOTED.)

WH INDICATES THE SAMPLER FELL UNDER THE WEIGHT OF ROD AND HAMMER

NSR NO SAMPLE RECOVERED

|| CASING USED

← LOSS OF CIRCULATION (%)

← RECOVERY OF CIRCULATION (%)

■ SHELBY TUBE SAMPLE LOCATION

CORE DATA

d ROCK CORE DIAMETER (INCHES)

t ROCK CORE TIME

RQD ROCK QUALITY DESIGNATION

γ UNIT WEIGHT (PCF)

qu UNCONFINED COMPRESSION (PSI)

qst SPLIT TENSILE STRENGTH (PSI)

LAB RESULTS

-200 FINES PASSING NO. 200 SIEVE (%)

NMC NATURAL MOISTURE CONTENT (%)

OC ORGANIC CONTENT (%)

LL LIQUID LIMIT (%)

PI PLASTICITY INDEX (%)

NP NON PLASTIC

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

ENGINEER OF RECORD:
PROFESSIONAL SERVICE INDUSTRIES, INC.
5801 BENJAMIN CENTER DR., SUITE 112
TAMPA, FL 33634 (813) 886-1075
FLORIDA ENGINEERING CERTIFICATE OF AUTHORIZATION No. 3684
CHING L. KUO, P.H.D., P.E.
FLORIDA LICENSE No. 36115

AA4 (SEGMENTAL/BULB-T)		
FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 400	HILLSBOROUGH	258415-1-52-01

SHEET TITLE:		BRIDGE NO. 100711
REPORT OF CORE BORINGS (17 OF 24)		
PROJECT NAME:		SHEET NO.
I-4/LEE ROY SELMON EXPRESSWAY INTERCHANGE		B9-46

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G5-23.003, F.A.C.

LEGEND

- (SP/SP-SM), GRAY-BROWN TO LIGHT TAN-SLIGHTLY SILTY FINE SAND TO FINE SAND
- (SM), BROWN TO DARK BROWN SILTY FINE SAND
- (SC), DARK BROWN TO GRAY CLAYEY FINE SAND
- (CL/CH), GRAY-BROWN OR BLUE-GREEN SANDY CLAY
- (WH), HIGHLY TO COMPLETELY WEATHERED TAN LIMESTONE
- (PT), DARK BROWN TO BLACK SANDY PEAT
- (WS), SLIGHTLY WEATHERED TAN LIMESTONE/DOLOMITE
- (CL), LIGHT GRAY TO BROWN SANDY CLAY
- (SM-SC), BROWN TO GRAY SLIGHTLY SILTY OR CLAYEY FINE SAND
- CHERT
- (ML/MH), TAN TO DARK GRAY SLIGHTLY SANDY SILT

- A WITH LIMESTONE
- B WITH CEMENTED SAND
- C WITH SILT AND CLAY
- D WITH BROKEN GLASS/DEBRIS
- E WITH SUSPECT CONTAMINATION ODOR
- F WITH TRACE OF PHOSPHATE
- G WITH SHELL FRAGMENTS
- H PARTIALLY INDURATED
- I WITH TRACE ORGANICS
- J WITH CHERT

ENVIRONMENTAL CLASSIFICATION

SUBSTRUCTURE: EXTREMELY AGGRESSIVE
 SUPERSTRUCTURE: EXTREMELY AGGRESSIVE

SOIL

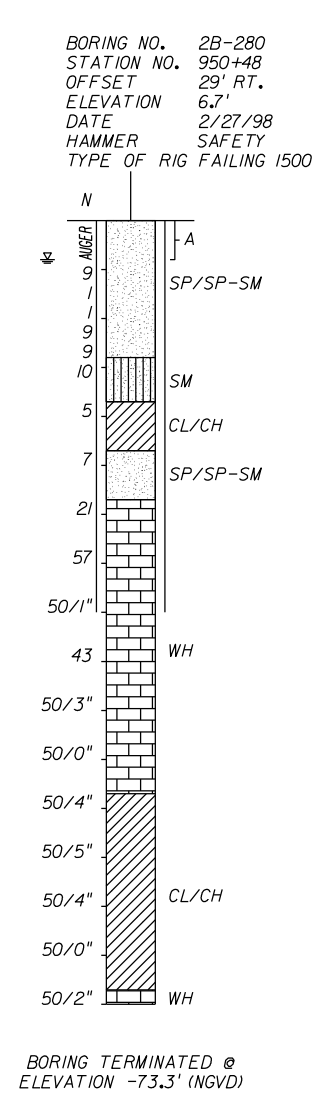
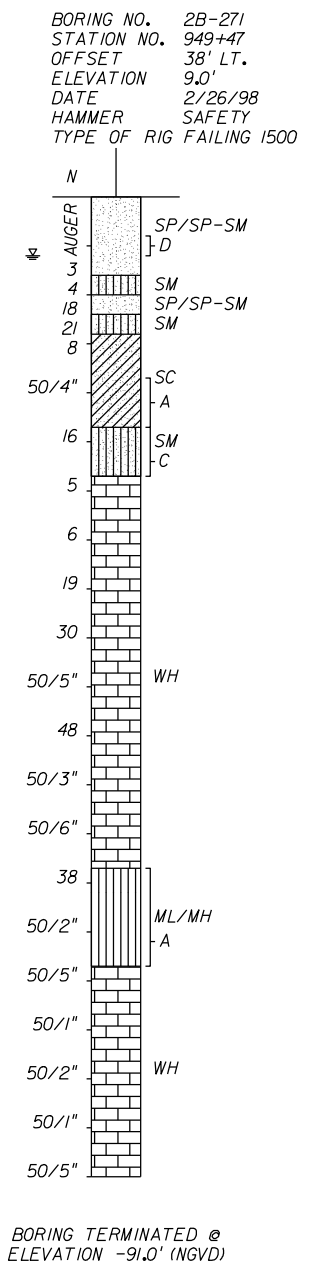
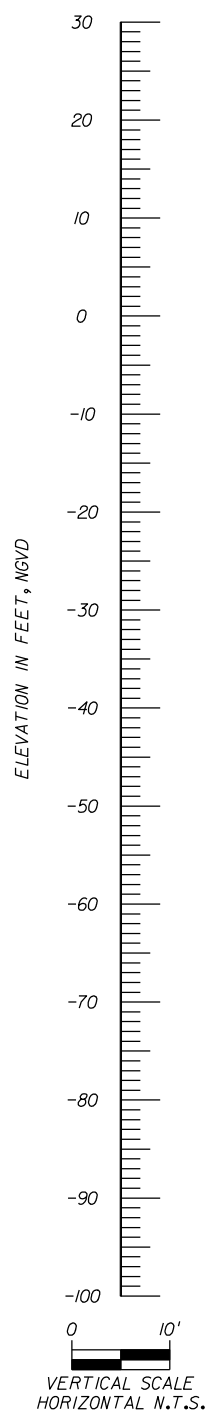
RESISTIVITY: 90 - 26,000 OHMS-CM
 CHLORIDES: < 10 - 5,500 PPM
 SULFATES: 0 - 3,462 PPM
 pH: 3.00 - 9.05

WATER

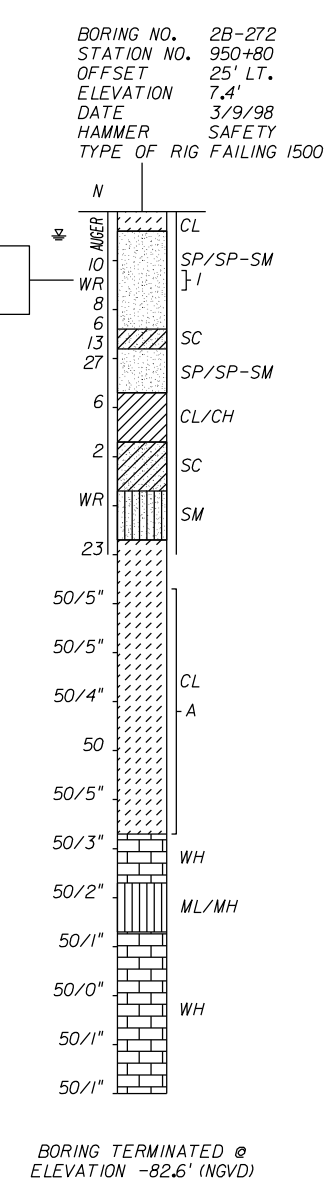
RESISTIVITY: 27 - 3,200 OHMS-CM
 CHLORIDES: 45 - 16,230 PPM
 SULFATES: 20 - 3,520 PPM
 pH: 6.94 - 7.40

GRANULAR MATERIALS-RELATIVE DENSITY	SPT (BLOWS/FT.)
VERY LOOSE	LESS THAN 4
LOOSE	5-10
MEDIUM	11-30
DENSE	31-50
VERY DENSE	GREATER THAN 50

SILTS AND CLAYS CONSISTENCY	SPT (BLOWS/FT.)
VERY SOFT	LESS THAN 2
SOFT	3-4
FIRM	5-8
STIFF	9-15
VERY STIFF	16-30
HARD	GREATER THAN 30



-200=9%
 NMC=48%
 OC=4%



NOTE: DIFFICULT DRILLING MAY BE ENCOUNTERED DUE TO THE PRESENCE OF CHERT LAYERS. SPECIAL TOOLS AND EQUIPMENT MAY BE REQUIRED TO PENETRATE THIS STRATUM.

STANDARD PENETRATION TEST

NUMBERS TO THE LEFT OF BORINGS INDICATE SPT VALUE FOR 12" PENETRATION. (UNLESS OTHERWISE NOTED.)

50/6" FIFTY BLOWS FOR SIX INCHES

WATER TABLE

GROUNDWATER LEVEL NOT APPARENT

ON THE LEFT SIDE OF A SOIL PROFILE INDICATES THE SAMPLER FELL UNDER THE WEIGHT OF ROD

ON THE LEFT SIDE OF A SOIL PROFILE INDICATES THE SAMPLER FELL UNDER THE WEIGHT OF ROD AND HAMMER

NO SAMPLE RECOVERED

CASING USED

LOSS OF CIRCULATION (%)

RECOVERY OF CIRCULATION (%)

SHELBY TUBE SAMPLE LOCATION

CORE DATA

d ROCK CORE DIAMETER (INCHES)

t ROCK CORE TIME

RQD ROCK QUALITY DESIGNATION

γ UNIT WEIGHT (PCF)

q_u UNCONFINED COMPRESSION (PSI)

q_{st} SPLIT TENSILE STRENGTH (PSI)

LAB RESULTS

-200 FINES PASSING NO. 200 SIEVE (%)

NMC NATURAL MOISTURE CONTENT (%)

OC ORGANIC CONTENT (%)

LL LIQUID LIMIT (%)

PI PLASTICITY INDEX (%)

NP NON PLASTIC

REVISIONS		DATE	BY	DESCRIPTION

DATE	BY	DESCRIPTION

ENGINEER OF RECORD:
 PROFESSIONAL SERVICE INDUSTRIES, INC.
 5801 BENJAMIN CENTER DR., SUITE 112
 TAMPA, FL 33634 (813) 886-1075
 FLORIDA ENGINEERING CERTIFICATE OF AUTHORIZATION No. 3684
 CHING L. KUO, P.H.D., P.E.
 FLORIDA LICENSE No. 36115

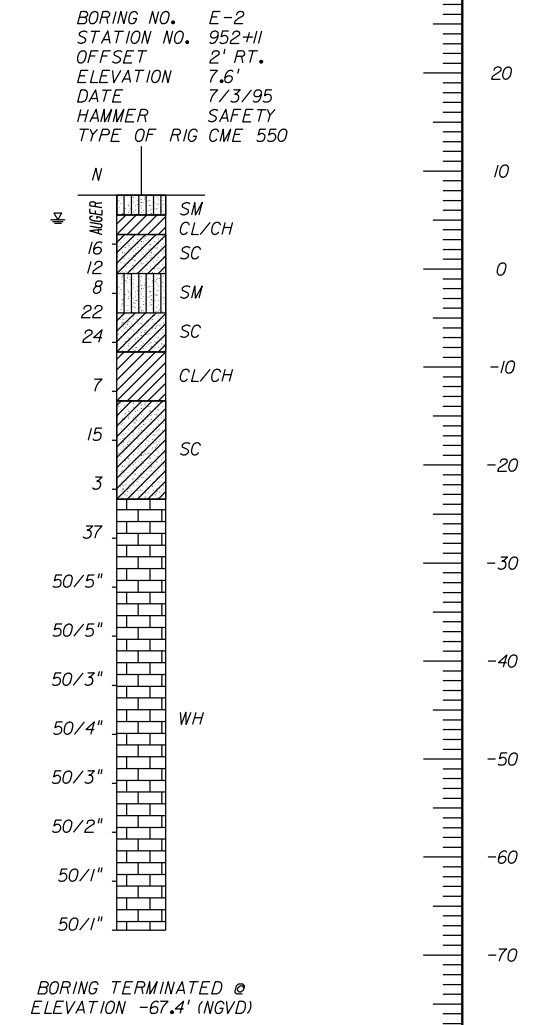
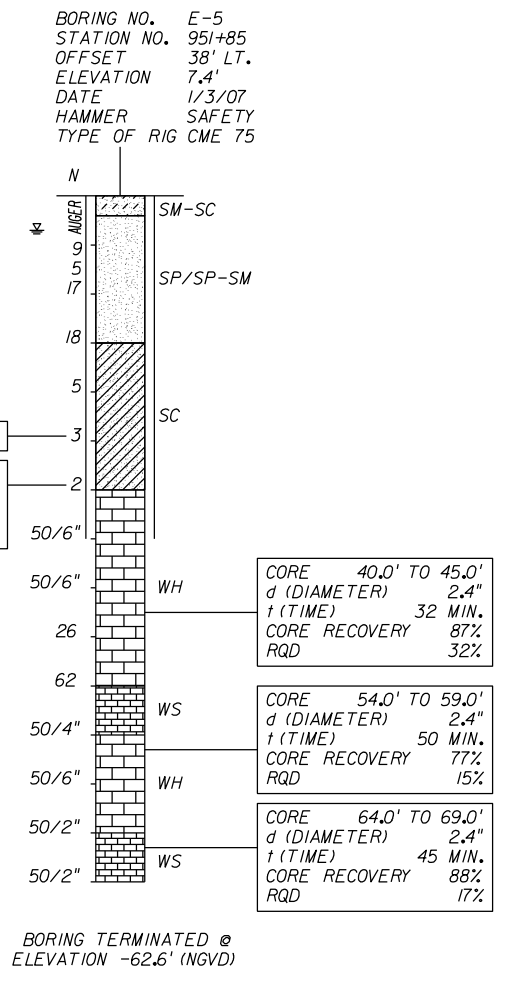
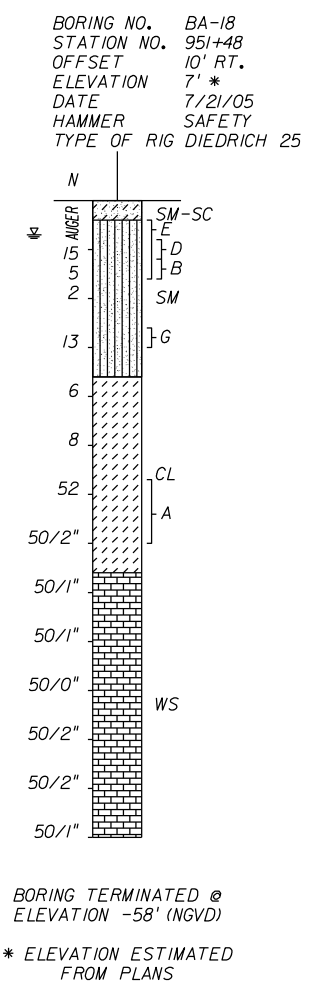
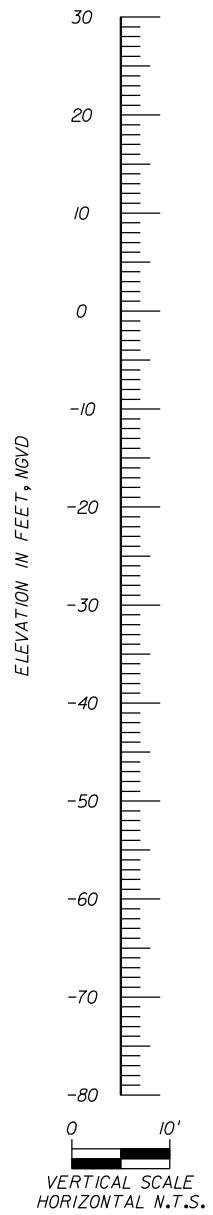
AA4 (SEGMENTAL/BULB-T)		
FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 400	HILLSBOROUGH	258415-1-52-01

BRIDGE NO. 100711	
REPORT OF CORE BORINGS (18 OF 24)	
PROJECT NAME:	SHEET NO.
1-4/LEE ROY SELMON EXPRESSWAY INTERCHANGE	B9-47

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G5-23.003, F.A.C.

LEGEND

- (SP/SP-SM), GRAY-BROWN TO LIGHT TAN-SLIGHTLY SILTY FINE SAND TO FINE SAND
 - (SM), BROWN TO DARK BROWN SILTY FINE SAND
 - (SC), DARK BROWN TO GRAY CLAYEY FINE SAND
 - (CL/CH), GRAY-BROWN OR BLUE-GREEN SANDY CLAY
 - (WH), HIGHLY TO COMPLETELY WEATHERED TAN LIMESTONE
 - (PT), DARK BROWN TO BLACK SANDY PEAT
 - (WS), SLIGHTLY WEATHERED TAN LIMESTONE/DOLOMITE
 - (CL), LIGHT GRAY TO BROWN SANDY CLAY
 - (SM-SC), BROWN TO GRAY SLIGHTLY SILTY OR CLAYEY FINE SAND
 - CHERT
 - (ML/MH), TAN TO DARK GRAY SLIGHTLY SANDY SILT
- | | |
|-----------------------------------|---------------------------|
| A WITH LIMESTONE | F WITH TRACE OF PHOSPHATE |
| B WITH CEMENTED SAND | G WITH SHELL FRAGMENTS |
| C WITH SILT AND CLAY | H PARTIALLY INDURATED |
| D WITH BROKEN GLASS/DEBRIS | I WITH TRACE ORGANICS |
| E WITH SUSPECT CONTAMINATION ODOR | J WITH CHERT |
- ENVIRONMENTAL CLASSIFICATION**
- SUBSTRUCTURE: EXTREMELY AGGRESSIVE
SUPERSTRUCTURE: EXTREMELY AGGRESSIVE
- SOIL**
- RESISTIVITY: 90 - 26,000 OHMS-CM
CHLORIDES: < 10 - 5,500 PPM
SULFATES: 0 - 3,462 PPM
pH: 3.00 - 9.05
- WATER**
- RESISTIVITY: 27 - 3,200 OHMS-CM
CHLORIDES: 45 - 16,230 PPM
SULFATES: 20 - 3,520 PPM
pH: 6.94 - 7.40



NOTE: DIFFICULT DRILLING MAY BE ENCOUNTERED DUE TO THE PRESENCE OF CHERT LAYERS. SPECIAL TOOLS AND EQUIPMENT MAY BE REQUIRED TO PENETRATE THIS STRATUM.

STANDARD PENETRATION TEST

NUMBERS TO THE LEFT OF BORINGS INDICATE SPT VALUE FOR 12" PENETRATION. (UNLESS OTHERWISE NOTED.)

WH INDICATES THE SAMPLER FELL UNDER THE WEIGHT OF ROD AND HAMMER

NSR NO SAMPLE RECOVERED

|| CASING USED

← LOSS OF CIRCULATION (%)

← RECOVERY OF CIRCULATION (%)

■ SHELBY TUBE SAMPLE LOCATION

50/6" FIFTY BLOWS FOR SIX INCHES

WATER TABLE

GNA GROUNDWATER LEVEL NOT APPARENT

WR ON THE LEFT SIDE OF A SOIL PROFILE INDICATES THE SAMPLER FELL UNDER THE WEIGHT OF ROD

CORE DATA

d ROCK CORE DIAMETER (INCHES)

t ROCK CORE TIME

RQD ROCK QUALITY DESIGNATION

γ UNIT WEIGHT (PCF)

q_u UNCONFINED COMPRESSION (PSI)

q_{st} SPLIT TENSILE STRENGTH (PSI)

LAB RESULTS

-200 FINES PASSING NO. 200 SIEVE (%)

NMC NATURAL MOISTURE CONTENT (%)

OC ORGANIC CONTENT (%)

LL LIQUID LIMIT (%)

PI PLASTICITY INDEX (%)

NP NON PLASTIC

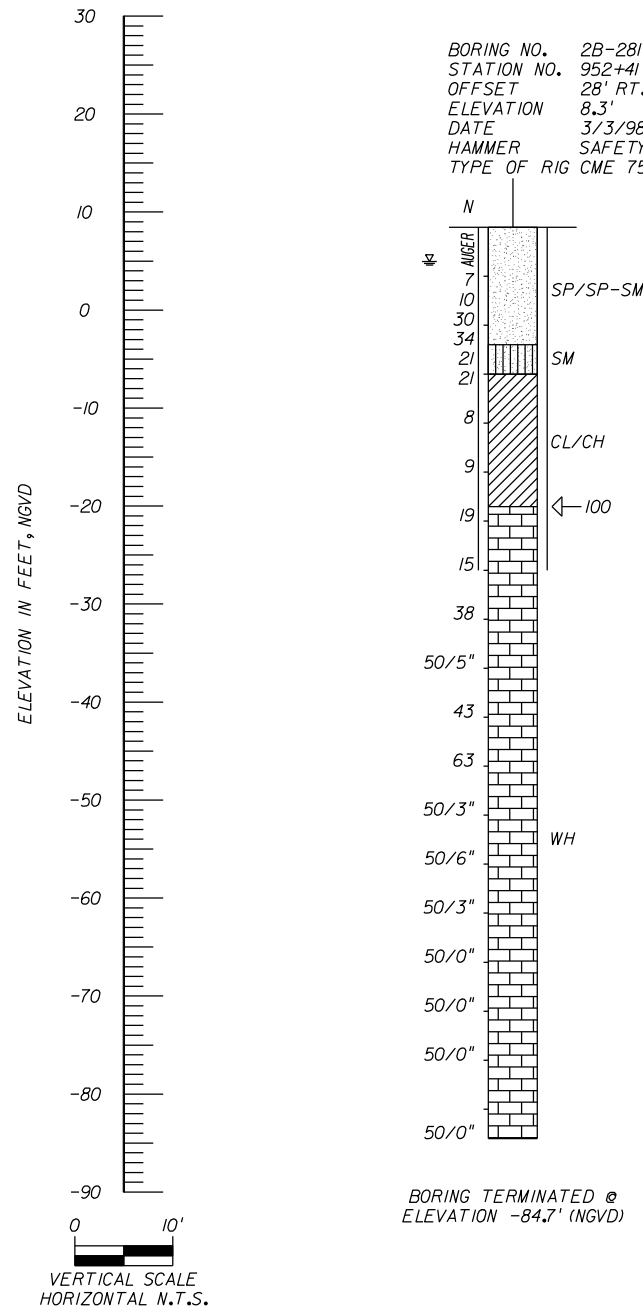
GRANULAR MATERIALS-RELATIVE DENSITY	SPT (BLOWS/FT.)
VERY LOOSE	LESS THAN 4
LOOSE	5-10
MEDIUM	11-30
DENSE	31-50
VERY DENSE	GREATER THAN 50
SILTS AND CLAYS CONSISTENCY	SPT (BLOWS/FT.)
VERY SOFT	LESS THAN 2
SOFT	3-4
FIRM	5-8
STIFF	9-15
VERY STIFF	16-30
HARD	GREATER THAN 30

DATE		BY	DESCRIPTION	DATE	BY	DESCRIPTION	DRAWN BY	DATE	DESIGNED BY	DATE	CHECKED BY	DATE	APPROVED BY	CHING L. KUO, P.H.D., P.E.	ENGINEER OF RECORD	PROFESSIONAL SERVICE INDUSTRIES, INC.	5801 BENJAMIN CENTER DR., SUITE 112	TAMPA, FL 33634	(813) 886-1075	FLORIDA ENGINEERING CERTIFICATE OF AUTHORIZATION No. 3684	CHING L. KUO, P.H.D., P.E.	FLORIDA LICENSE No. 36115	AA4 (SEGMENTAL/BULB-T)	FLORIDA DEPARTMENT OF TRANSPORTATION	ROAD NO.	COUNTY	FINANCIAL PROJECT ID	SR 400	HILLSBOROUGH	258415-1-52-01	SHEET TITLE	BRIDGE NO. 100711	REPORT OF CORE BORINGS (19 OF 24)	PROJECT NAME	I-4/LEE ROY SELMON EXPRESSWAY INTERCHANGE	SHEET NO.	B9-48
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NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G5-23.003, F.A.C.

LEGEND

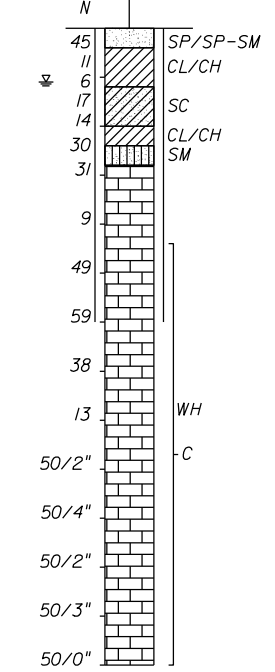
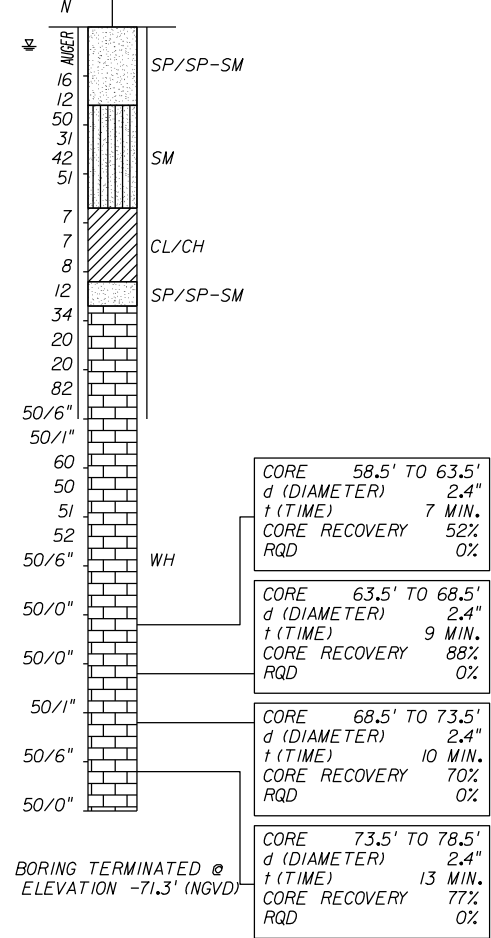
Legend table defining soil types (SP/SP-SM, SM, SC, CL/CH, WH, PT, WS, CL, SM-SC, CHERT, ML/MH) and their characteristics, along with environmental classification and soil/water test results.



BORING NO. 2B-281
STATION NO. 952+41
OFFSET 28' RT.
ELEVATION 8.3'

BORING NO. 2B-290
STATION NO. 952+91
OFFSET 67' RT.
ELEVATION 8.7'

BORING NO. A-7
STATION NO. 953+93
OFFSET 39' RT.
ELEVATION 8.4'



BORING TERMINATED @ ELEVATION -56.6' (NGVD)

NOTE: DIFFICULT DRILLING MAY BE ENCOUNTERED DUE TO THE PRESENCE OF CHERT LAYERS. SPECIAL TOOLS AND EQUIPMENT MAY BE REQUIRED TO PENETRATE THIS STRATUM.

STANDARD PENETRATION TEST

NUMBERS TO THE LEFT OF BORINGS INDICATE SPT VALUE FOR 12" PENETRATION. ON THE LEFT SIDE OF A SOIL PROFILE WH INDICATES THE SAMPLER FELL UNDER THE WEIGHT OF ROD AND HAMMER.

ON THE LEFT SIDE OF A SOIL PROFILE WH INDICATES THE SAMPLER FELL UNDER THE WEIGHT OF ROD AND HAMMER. WH INDICATES THE SAMPLER FELL UNDER THE WEIGHT OF ROD AND HAMMER.

CORE DATA

d ROCK CORE DIAMETER (INCHES)
t ROCK CORE TIME
RQD ROCK QUALITY DESIGNATION
gamma UNIT WEIGHT (PCF)
qu UNCONFINED COMPRESSION (PSI)
qst SPLIT TENSILE STRENGTH (PSI)

LAB RESULTS

-200 FINES PASSING NO. 200 SIEVE (%)
NMC NATURAL MOISTURE CONTENT (%)
OC ORGANIC CONTENT (%)
LL LIQUID LIMIT (%)
PI PLASTICITY INDEX (%)
NP NON PLASTIC

Table showing soil consistency classifications (VERY LOOSE, LOOSE, MEDIUM, DENSE, VERY DENSE) and SPT (BLOWS/FT.) values.

REVISIONS

Table with columns for DATE, BY, DESCRIPTION, and a section for DRAWN BY, CHECKED BY, DESIGNED BY, APPROVED BY.

ENGINEER OF RECORD: PROFESSIONAL SERVICE INDUSTRIES, INC. 5801 BENJAMIN CENTER DR., SUITE 112 TAMPA, FL 33634 (813) 886-1075

Table with project information: AA4 (SEGMENTAL/BULB-T), FLORIDA DEPARTMENT OF TRANSPORTATION, ROAD NO. SR 400, COUNTY HILLSBOROUGH, FINANCIAL PROJECT ID 258415-1-52-01.

Table with project name: 1-4/LEE ROY SELMON EXPRESSWAY INTERCHANGE, and sheet number: B9-49.

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G5-23.003, F.A.C.

LEGEND

- (SP/SP-SM), GRAY-BROWN TO LIGHT TAN-SLIGHTLY SILTY FINE SAND TO FINE SAND
- (SM), BROWN TO DARK BROWN SILTY FINE SAND
- (SC), DARK BROWN TO GRAY CLAYEY FINE SAND
- (CL/CH), GRAY-BROWN OR BLUE-GREEN SANDY CLAY
- (WH), HIGHLY TO COMPLETELY WEATHERED TAN LIMESTONE
- (PT), DARK BROWN TO BLACK SANDY PEAT
- (WS), SLIGHTLY WEATHERED TAN LIMESTONE/DOLOMITE
- (CL), LIGHT GRAY TO BROWN SANDY CLAY
- (SM-SC), BROWN TO GRAY SLIGHTLY SILTY OR CLAYEY FINE SAND
- CHERT
- (ML/MH), TAN TO DARK GRAY SLIGHTLY SANDY SILT

- A WITH LIMESTONE
- B WITH CEMENTED SAND
- C WITH SILT AND CLAY
- D WITH BROKEN GLASS/DEBRIS
- E WITH SUSPECT CONTAMINATION ODOR
- F WITH TRACE OF PHOSPHATE
- G WITH SHELL FRAGMENTS
- H PARTIALLY INDURATED
- I WITH TRACE ORGANICS
- J WITH CHERT

ENVIRONMENTAL CLASSIFICATION

SUBSTRUCTURE: EXTREMELY AGGRESSIVE
 SUPERSTRUCTURE: EXTREMELY AGGRESSIVE

SOIL

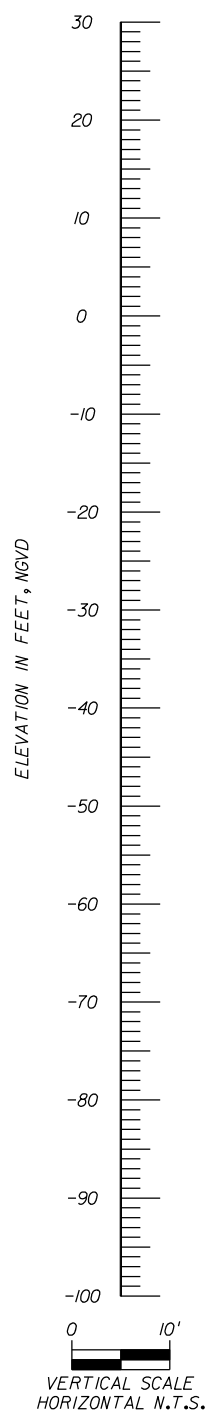
RESISTIVITY: 90 - 26,000 OHMS-CM
 CHLORIDES: < 10 - 5,500 PPM
 SULFATES: 0 - 3,462 PPM
 pH: 3.00 - 9.05

WATER

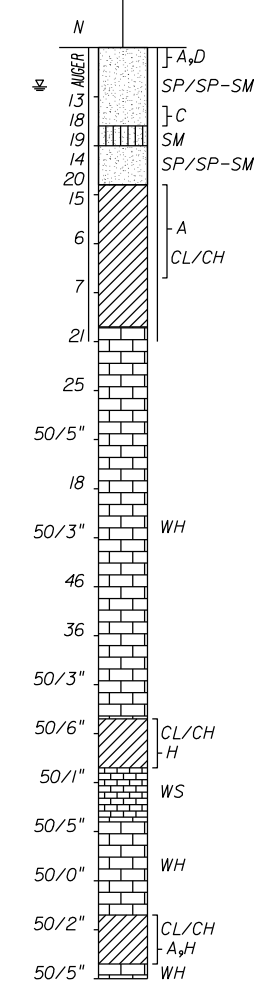
RESISTIVITY: 27 - 3,200 OHMS-CM
 CHLORIDES: 45 - 16,230 PPM
 SULFATES: 20 - 3,520 PPM
 pH: 6.94 - 7.40

GRANULAR MATERIALS-RELATIVE DENSITY	SPT (BLOWS/FT.)
VERY LOOSE	LESS THAN 4
LOOSE	5-10
MEDIUM	11-30
DENSE	31-50
VERY DENSE	GREATER THAN 50

SILTS AND CLAYS CONSISTENCY	SPT (BLOWS/FT.)
VERY SOFT	LESS THAN 2
SOFT	3-4
FIRM	5-8
STIFF	9-15
VERY STIFF	16-30
HARD	GREATER THAN 30

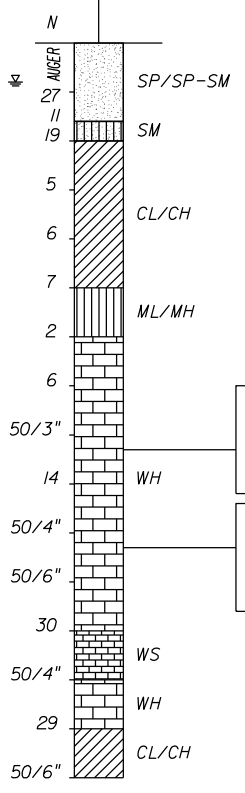


BORING NO. 2B-253
 STATION NO. 954+00
 OFFSET 43' LT.
 ELEVATION 7.9'
 DATE 12/17/97
 HAMMER SAFETY
 TYPE OF RIG FAILING 1500



BORING TERMINATED @ ELEVATION -87.1' (NGVD)

BORING NO. E-7
 STATION NO. 954+66
 OFFSET 37' LT.
 ELEVATION 8.5'
 DATE 1/29/07
 HAMMER SAFETY
 TYPE OF RIG CME 75



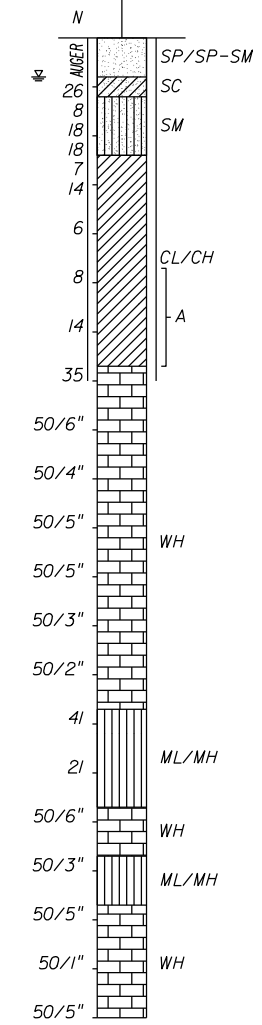
CORE 39.0' TO 44.0'
 d (DIAMETER) 2.4"
 t (TIME) 38 MIN.
 CORE RECOVERY 100%
 RQD 88%

CORE 49.0' TO 54.0'
 d (DIAMETER) 2.4"
 t (TIME) 45 MIN.
 CORE RECOVERY 90%
 RQD 48%

BORING TERMINATED @ ELEVATION -66.5' (NGVD)

NOTE: DIFFICULT DRILLING MAY BE ENCOUNTERED DUE TO THE PRESENCE OF CHERT LAYERS. SPECIAL TOOLS AND EQUIPMENT MAY BE REQUIRED TO PENETRATE THIS STRATUM.

BORING NO. 2B-274
 STATION NO. 955+62
 OFFSET 26' RT.
 ELEVATION 8.8'
 DATE 4/15/98
 HAMMER SAFETY
 TYPE OF RIG FAILING 1500



BORING TERMINATED @ ELEVATION -91.2' (NGVD)

STANDARD PENETRATION TEST

NUMBERS TO THE LEFT OF BORINGS INDICATE SPT VALUE FOR 12" PENETRATION. (UNLESS OTHERWISE NOTED.)

50/6" FIFTY BLOWS FOR SIX INCHES

WATER TABLE

GROUNDWATER LEVEL NOT APPARENT

ON THE LEFT SIDE OF A SOIL PROFILE INDICATES THE SAMPLER FELL UNDER THE WEIGHT OF ROD

ON THE LEFT SIDE OF A SOIL PROFILE INDICATES THE SAMPLER FELL UNDER THE WEIGHT OF ROD AND HAMMER

NO SAMPLE RECOVERED

CASING USED

LOSS OF CIRCULATION (%)

RECOVERY OF CIRCULATION (%)

SHELBY TUBE SAMPLE LOCATION

CORE DATA

d ROCK CORE DIAMETER (INCHES)

t ROCK CORE TIME

RQD ROCK QUALITY DESIGNATION

γ UNIT WEIGHT (PCF)

q_u UNCONFINED COMPRESSION (PSI)

q_{st} SPLIT TENSILE STRENGTH (PSI)

LAB RESULTS

-200 FINES PASSING NO. 200 SIEVE (%)

NMC NATURAL MOISTURE CONTENT (%)

OC ORGANIC CONTENT (%)

LL LIQUID LIMIT (%)

PI PLASTICITY INDEX (%)

NP NON PLASTIC

REVISIONS				DRAWN BY		DESIGNED BY		CHECKED BY		APPROVED BY		ENGINEER OF RECORD			PROJECT INFORMATION			SHEET INFORMATION	
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	NAME	DATE	ROAD NO.	COUNTY	FINANCIAL PROJECT ID	PROJECT NAME	SHEET NO.	
												CHING L. KUO, P.E.	11/08	SR 400	HILLSBOROUGH	258415-1-52-01	1-4/LEE ROY SELMON EXPRESSWAY INTERCHANGE	B9-50	

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G5-23.003, F.A.C.

LEGEND

- (SP/SP-SM), GRAY-BROWN TO LIGHT TAN-SLIGHTLY SILTY FINE SAND TO FINE SAND
- (SM), BROWN TO DARK BROWN SILTY FINE SAND
- (SC), DARK BROWN TO GRAY CLAYEY FINE SAND
- (CL/CH), GRAY-BROWN OR BLUE-GREEN SANDY CLAY
- (WH), HIGHLY TO COMPLETELY WEATHERED TAN LIMESTONE
- (PT), DARK BROWN TO BLACK SANDY PEAT
- (WS), SLIGHTLY WEATHERED TAN LIMESTONE/DOLOMITE
- (CL), LIGHT GRAY TO BROWN SANDY CLAY
- (SM-SC), BROWN TO GRAY SLIGHTLY SILTY OR CLAYEY FINE SAND
- CHERT
- (ML/MH), TAN TO DARK GRAY SLIGHTLY SANDY SILT

- A WITH LIMESTONE
- B WITH CEMENTED SAND
- C WITH SILT AND CLAY
- D WITH BROKEN GLASS/DEBRIS
- E WITH SUSPECT CONTAMINATION ODOR
- F WITH TRACE OF PHOSPHATE
- G WITH SHELL FRAGMENTS
- H PARTIALLY INDURATED
- I WITH TRACE ORGANICS
- J WITH CHERT

ENVIRONMENTAL CLASSIFICATION

SUBSTRUCTURE: EXTREMELY AGGRESSIVE
 SUPERSTRUCTURE: EXTREMELY AGGRESSIVE

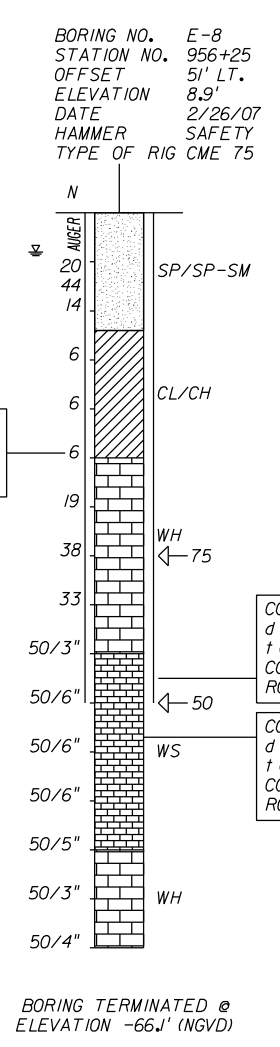
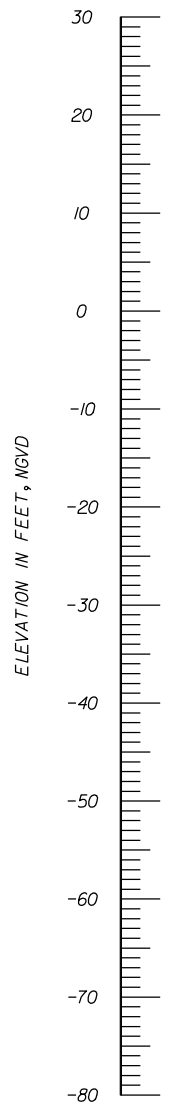
SOIL

RESISTIVITY: 90 - 26,000 OHMS-CM
 CHLORIDES: < 10 - 5,500 PPM
 SULFATES: 0 - 3,462 PPM
 pH: 3.00 - 9.05

WATER

RESISTIVITY: 27 - 3,200 OHMS-CM
 CHLORIDES: 45 - 16,230 PPM
 SULFATES: 20 - 3,520 PPM
 pH: 6.94 - 7.40

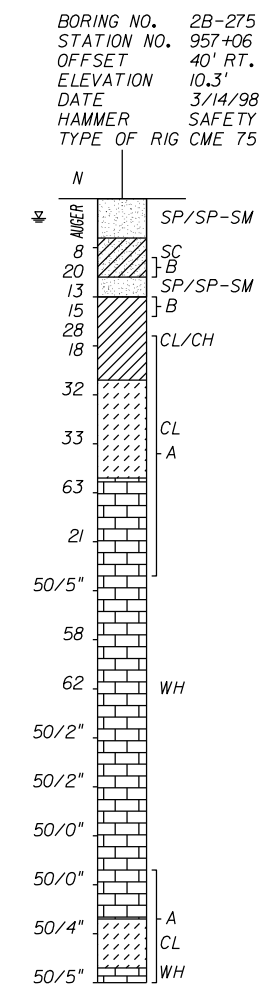
GRANULAR MATERIALS-RELATIVE DENSITY	SPT (BLOWS/FT.)
VERY LOOSE	LESS THAN 4
LOOSE	5-10
MEDIUM	11-30
DENSE	31-50
VERY DENSE	GREATER THAN 50
SILTS AND CLAYS CONSISTENCY	SPT (BLOWS/FT.)
VERY SOFT	LESS THAN 2
SOFT	3-4
FIRM	5-8
STIFF	9-15
VERY STIFF	16-30
HARD	GREATER THAN 30



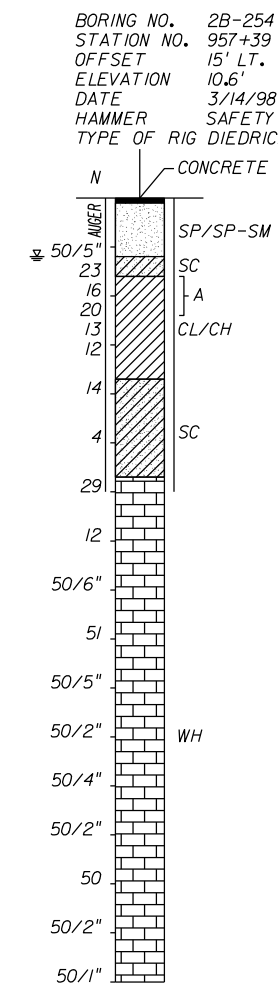
-200=45%
 NMC=34%
 LL=55%
 PI=37%

CORE 45.0' TO 50.0'
 d (DIAMETER) 2.4"
 t (TIME) 57 MIN.
 CORE RECOVERY 92%
 RQD 82%

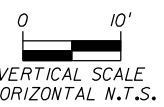
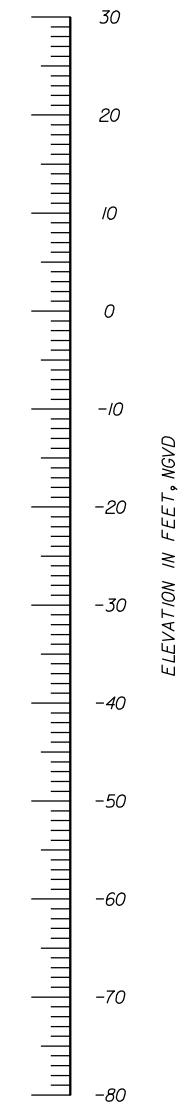
CORE 51.0' TO 56.0'
 d (DIAMETER) 2.4"
 t (TIME) 21 MIN.
 CORE RECOVERY 67%
 RQD 40%



BORING TERMINATED @
 ELEVATION -69.7' (NGVD)



BORING TERMINATED @
 ELEVATION -69.4' (NGVD)



NOTE: DIFFICULT DRILLING MAY BE ENCOUNTERED DUE TO THE PRESENCE OF CHERT LAYERS. SPECIAL TOOLS AND EQUIPMENT MAY BE REQUIRED TO PENETRATE THIS STRATUM.

STANDARD PENETRATION TEST

NUMBERS TO THE LEFT OF BORINGS INDICATE SPT VALUE FOR 12" PENETRATION. (UNLESS OTHERWISE NOTED.)

50/6" FIFTY BLOWS FOR SIX INCHES

WATER TABLE

GROUNDWATER LEVEL NOT APPARENT

ON THE LEFT SIDE OF A SOIL PROFILE INDICATES THE SAMPLER FELL UNDER THE WEIGHT OF ROD

ON THE LEFT SIDE OF A SOIL PROFILE INDICATES THE SAMPLER FELL UNDER THE WEIGHT OF ROD AND HAMMER

NO SAMPLE RECOVERED

CASING USED

LOSS OF CIRCULATION (%)

RECOVERY OF CIRCULATION (%)

SHELBY TUBE SAMPLE LOCATION

CORE DATA

d ROCK CORE DIAMETER (INCHES)

t ROCK CORE TIME

RQD ROCK QUALITY DESIGNATION

γ UNIT WEIGHT (PCF)

q_u UNCONFINED COMPRESSION (PSI)

q_{st} SPLIT TENSILE STRENGTH (PSI)

LAB RESULTS

-200 FINES PASSING NO. 200 SIEVE (%)

NMC NATURAL MOISTURE CONTENT (%)

OC ORGANIC CONTENT (%)

LL LIQUID LIMIT (%)

PI PLASTICITY INDEX (%)

NP NON PLASTIC

AA4 (SEGMENTAL/BULB-T)		BRIDGE NO. 100711	
FLORIDA DEPARTMENT OF TRANSPORTATION		REPORT OF CORE BORINGS (22 OF 24)	
ROAD NO.	COUNTY	FINANCIAL PROJECT ID	PROJECT NAME
SR 400	HILLSBOROUGH	258415-1-52-01	1-4/LEE ROY SELMON EXPRESSWAY INTERCHANGE
DATE	BY	DESCRIPTION	SHEET NO.
			B9-51

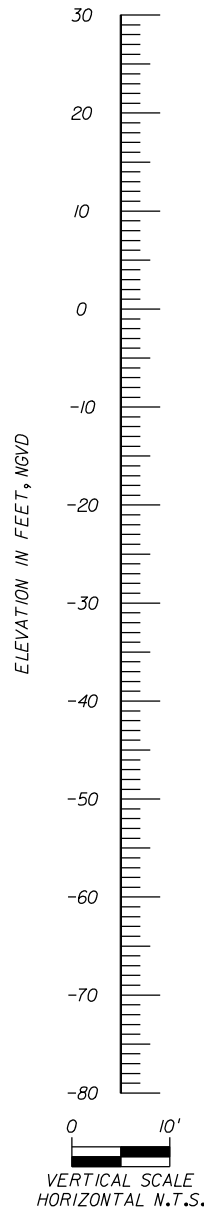
NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G5-23.003, F.A.C.

ENGINEER OF RECORD:
 PROFESSIONAL SERVICE INDUSTRIES, INC.
 5801 BENJAMIN CENTER DR., SUITE 112
 TAMPA, FL 33634 (813) 886-1075
 FLORIDA ENGINEERING CERTIFICATE
 OF AUTHORIZATION No. 3684
 CHING L. KUO, P.E., P.C.
 FLORIDA LICENSE No. 36115

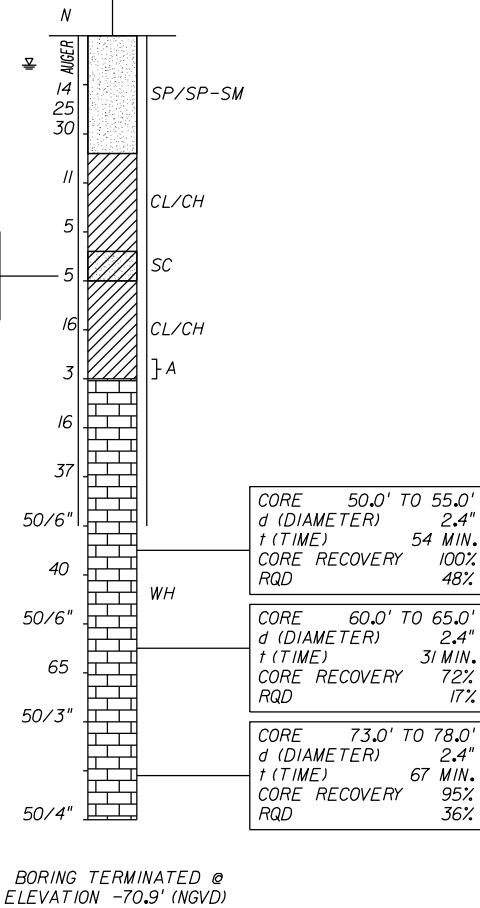
LEGEND

- (SP/SP-SM), GRAY-BROWN TO LIGHT TAN-SLIGHTLY SILTY FINE SAND TO FINE SAND
 - (SM), BROWN TO DARK BROWN SILTY FINE SAND
 - (SC), DARK BROWN TO GRAY CLAYEY FINE SAND
 - (CL/CH), GRAY-BROWN OR BLUE-GREEN SANDY CLAY
 - (WH), HIGHLY TO COMPLETELY WEATHERED TAN LIMESTONE
 - (PT), DARK BROWN TO BLACK SANDY PEAT
 - (WS), SLIGHTLY WEATHERED TAN LIMESTONE/DOLOMITE
 - (CL), LIGHT GRAY TO BROWN SANDY CLAY
 - (SM-SC), BROWN TO GRAY SLIGHTLY SILTY OR CLAYEY FINE SAND
 - CHERT
 - (ML/MH), TAN TO DARK GRAY SLIGHTLY SANDY SILT
- | | |
|-----------------------------------|---------------------------|
| A WITH LIMESTONE | F WITH TRACE OF PHOSPHATE |
| B WITH CEMENTED SAND | G WITH SHELL FRAGMENTS |
| C WITH SILT AND CLAY | H PARTIALLY INDURATED |
| D WITH BROKEN GLASS/DEBRIS | I WITH TRACE ORGANICS |
| E WITH SUSPECT CONTAMINATION ODOR | J WITH CHERT |
- ENVIRONMENTAL CLASSIFICATION**
- SUBSTRUCTURE: EXTREMELY AGGRESSIVE
SUPERSTRUCTURE: EXTREMELY AGGRESSIVE
- SOIL**
- RESISTIVITY: 90 - 26,000 OHMS-CM
CHLORIDES: < 10 - 5,500 PPM
SULFATES: 0 - 3,462 PPM
pH: 3.00 - 9.05
- WATER**
- RESISTIVITY: 27 - 3,200 OHMS-CM
CHLORIDES: 45 - 16,230 PPM
SULFATES: 20 - 3,520 PPM
pH: 6.94 - 7.40

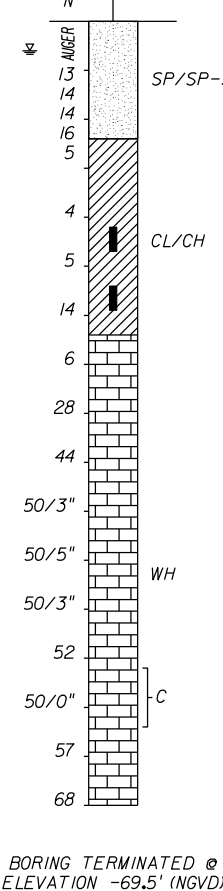
NOTE: DIFFICULT DRILLING MAY BE ENCOUNTERED DUE TO THE PRESENCE OF CHERT LAYERS. SPECIAL TOOLS AND EQUIPMENT MAY BE REQUIRED TO PENETRATE THIS STRATUM.



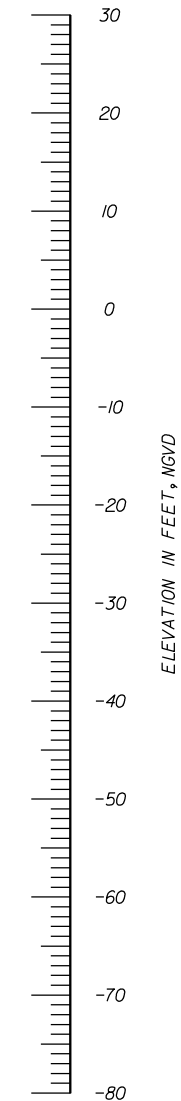
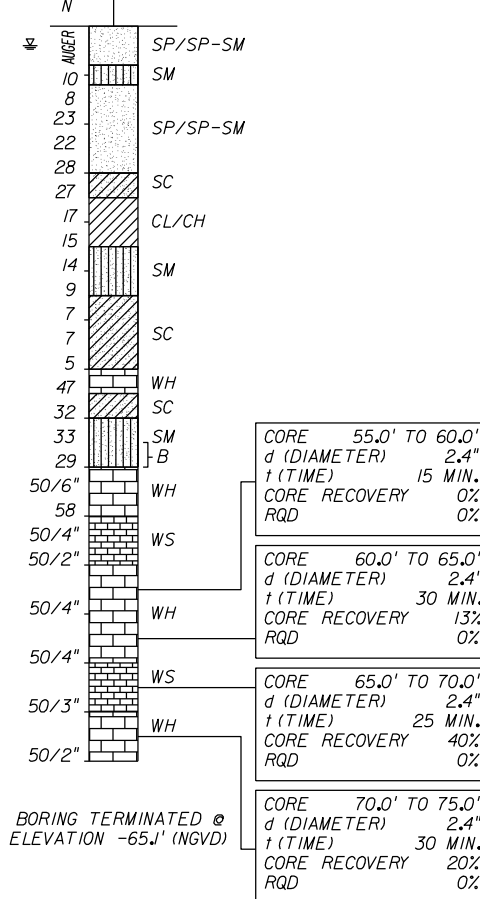
BORING NO. E-9
STATION NO. 958+73
OFFSET 46' LT.
ELEVATION 9.1'
DATE 2/20/07
HAMMER SAFETY
TYPE OF RIG CME 75



BORING NO. R-17
STATION NO. 958+86
OFFSET 42' RT.
ELEVATION 10.5'
DATE 5/16/95
HAMMER SAFETY
TYPE OF RIG CME 550



BORING NO. B-68
STATION NO. 961+31
OFFSET 97' RT.
ELEVATION 9.9'
DATE 6/20/95
HAMMER SAFETY
TYPE OF RIG CME 550



STANDARD PENETRATION TEST

NUMBERS TO THE LEFT OF BORINGS INDICATE SPT VALUE FOR 12" PENETRATION. (UNLESS OTHERWISE NOTED.)

ON THE LEFT SIDE OF A SOIL PROFILE INDICATES THE SAMPLER FELL UNDER THE WEIGHT OF ROD AND HAMMER

NSR NO SAMPLE RECOVERED

|| CASING USED

← LOSS OF CIRCULATION (%)

← RECOVERY OF CIRCULATION (%)

█ SHELBY TUBE SAMPLE LOCATION

50/6" FIFTY BLOWS FOR SIX INCHES

WATER TABLE

GNA GROUNDWATER LEVEL NOT APPARENT

WR ON THE LEFT SIDE OF A SOIL PROFILE INDICATES THE SAMPLER FELL UNDER THE WEIGHT OF ROD

CORE DATA

d ROCK CORE DIAMETER (INCHES)

t ROCK CORE TIME

RQD ROCK QUALITY DESIGNATION

γ UNIT WEIGHT (PCF)

qu UNCONFINED COMPRESSION (PSI)

qst SPLIT TENSILE STRENGTH (PSI)

LAB RESULTS

-200 FINES PASSING NO. 200 SIEVE (%)

NMC NATURAL MOISTURE CONTENT (%)

OC ORGANIC CONTENT (%)

LL LIQUID LIMIT (%)

PI PLASTICITY INDEX (%)

NP NON PLASTIC

GRANULAR MATERIALS-RELATIVE DENSITY	SPT (BLOWS/FT.)
VERY LOOSE	LESS THAN 4
LOOSE	5-10
MEDIUM	11-30
DENSE	31-50
VERY DENSE	GREATER THAN 50
SILTS AND CLAYS CONSISTENCY	SPT (BLOWS/FT.)
VERY SOFT	LESS THAN 2
SOFT	3-4
FIRM	5-8
STIFF	9-15
VERY STIFF	16-30
HARD	GREATER THAN 30

<p>ENGINEER OF RECORD: PROFESSIONAL SERVICE INDUSTRIES, INC. 5801 BENJAMIN CENTER DR., SUITE 112 TAMPA, FL 33634 (813) 886-1075 FLORIDA ENGINEERING CERTIFICATE OF AUTHORIZATION No. 3684 CHING L. KUO, P.H.D., P.E. FLORIDA LICENSE No. 36115</p>				<p>AA4 (SEGMENTAL/BULB-T)</p>		<p>BRIDGE NO. 100711</p>	
<p>FLORIDA DEPARTMENT OF TRANSPORTATION</p>				<p>ROAD NO. COUNTY FINANCIAL PROJECT ID</p>		<p>SHEET TITLE: REPORT OF CORE BORINGS (23 OF 24)</p>	
<p>DATE BY DESCRIPTION</p>				<p>SR 400 HILLSBOROUGH 258415-1-52-01</p>		<p>PROJECT NAME: 1-4/LEE ROY SELMON EXPRESSWAY INTERCHANGE</p>	
<p>APPROVED BY CHING L. KUO, P.H.D., P.E.</p>				<p>10/28/2008 1:53:29 PM</p>		<p>SHEET NO. B9-52</p>	

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G5-23.003, F.A.C.

LEGEND

- (SP/SP-SM), GRAY-BROWN TO LIGHT TAN-SLIGHTLY SILTY FINE SAND TO FINE SAND
- (SM), BROWN TO DARK BROWN SILTY FINE SAND
- (SC), DARK BROWN TO GRAY CLAYEY FINE SAND
- (CL/CH), GRAY-BROWN OR BLUE-GREEN SANDY CLAY
- (WH), HIGHLY TO COMPLETELY WEATHERED TAN LIMESTONE
- (PT), DARK BROWN TO BLACK SANDY PEAT
- (WS), SLIGHTLY WEATHERED TAN LIMESTONE/DOLOMITE
- (CL), LIGHT GRAY TO BROWN SANDY CLAY
- (SM-SC), BROWN TO GRAY SLIGHTLY SILTY OR CLAYEY FINE SAND
- CHERT
- (ML/MH), TAN TO DARK GRAY SLIGHTLY SANDY SILT

- A WITH LIMESTONE
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- D WITH BROKEN GLASS/DEBRIS
- E WITH SUSPECT CONTAMINATION ODOR
- F WITH TRACE OF PHOSPHATE
- G WITH SHELL FRAGMENTS
- H PARTIALLY INDURATED
- I WITH TRACE ORGANICS
- J WITH CHERT

ENVIRONMENTAL CLASSIFICATION

SUBSTRUCTURE: EXTREMELY AGGRESSIVE
SUPERSTRUCTURE: EXTREMELY AGGRESSIVE

SOIL

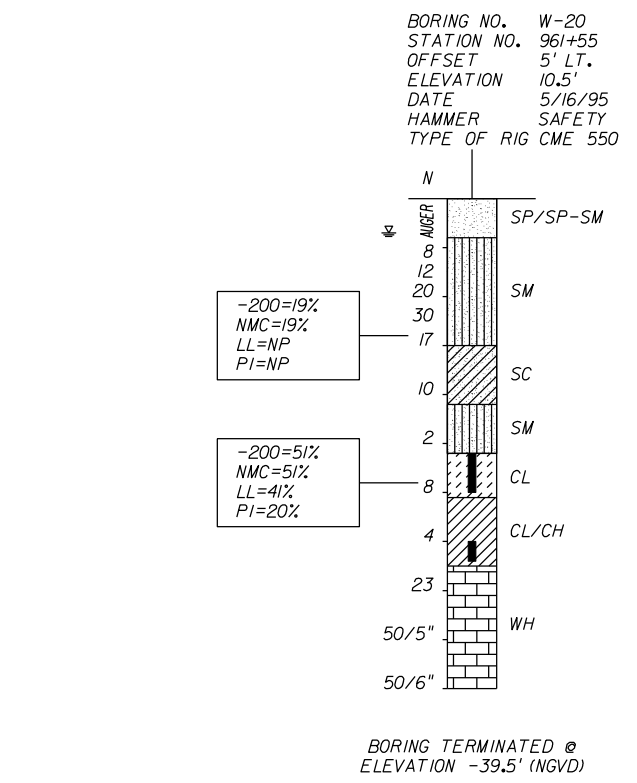
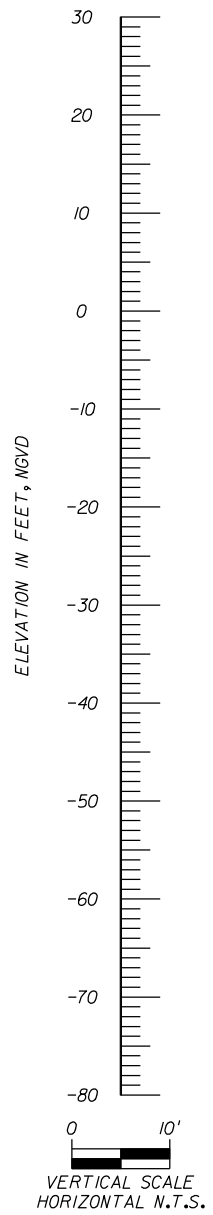
RESISTIVITY: 90 - 26,000 OHMS-CM
CHLORIDES: < 10 - 5,500 PPM
SULFATES: 0 - 3,462 PPM
pH: 3.00 - 9.05

WATER

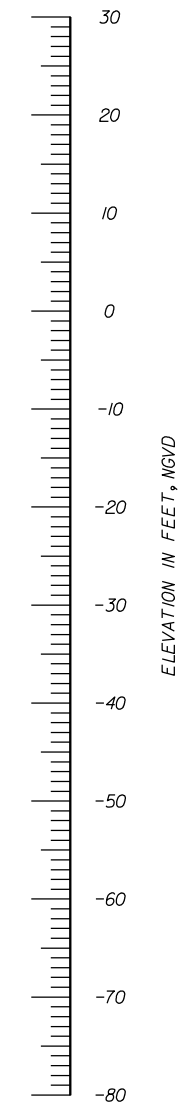
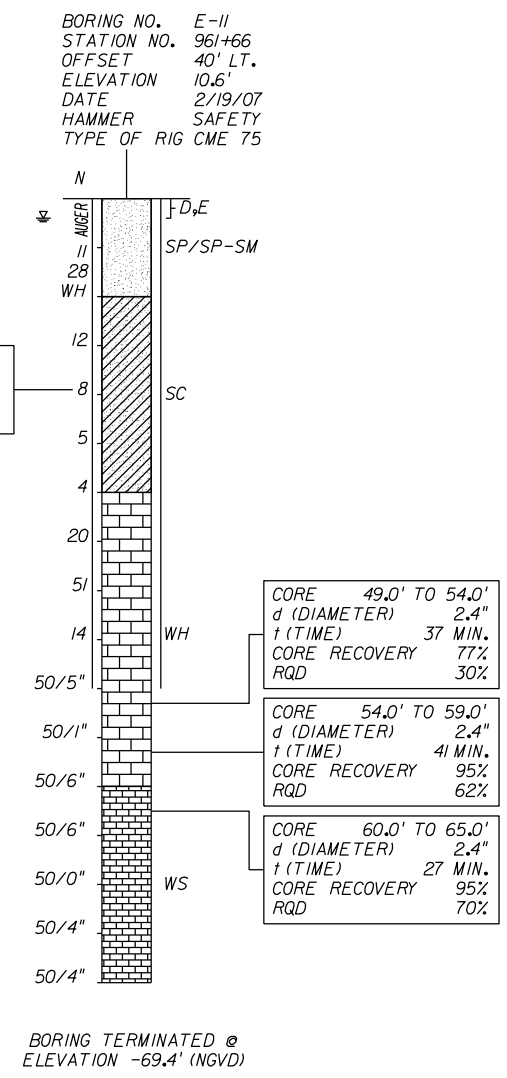
RESISTIVITY: 27 - 3,200 OHMS-CM
CHLORIDES: 45 - 16,230 PPM
SULFATES: 20 - 3,520 PPM
pH: 6.94 - 7.40

GRANULAR MATERIALS-RELATIVE DENSITY	SPT (BLOWS/FT.)
VERY LOOSE	LESS THAN 4
LOOSE	5-10
MEDIUM	11-30
DENSE	31-50
VERY DENSE	GREATER THAN 50

SILTS AND CLAYS CONSISTENCY	SPT (BLOWS/FT.)
VERY SOFT	LESS THAN 2
SOFT	3-4
FIRM	5-8
STIFF	9-15
VERY STIFF	16-30
HARD	GREATER THAN 30



NOTE: DIFFICULT DRILLING MAY BE ENCOUNTERED DUE TO THE PRESENCE OF CHERT LAYERS. SPECIAL TOOLS AND EQUIPMENT MAY BE REQUIRED TO PENETRATE THIS STRATUM.



STANDARD PENETRATION TEST

NUMBERS TO THE LEFT OF BORINGS INDICATE SPT VALUE FOR 12" PENETRATION. (UNLESS OTHERWISE NOTED.)

ON THE LEFT SIDE OF A SOIL PROFILE INDICATES THE SAMPLER FELL UNDER THE WEIGHT OF ROD AND HAMMER

NSR NO SAMPLE RECOVERED

||| CASING USED

← LOSS OF CIRCULATION (%)

← RECOVERY OF CIRCULATION (%)

█ SHELBY TUBE SAMPLE LOCATION

50/6" FIFTY BLOWS FOR SIX INCHES

WATER TABLE

GROUNDWATER LEVEL NOT APPARENT

ON THE LEFT SIDE OF A SOIL PROFILE INDICATES THE SAMPLER FELL UNDER THE WEIGHT OF ROD

CORE DATA

d ROCK CORE DIAMETER (INCHES)

t ROCK CORE TIME

RQD ROCK QUALITY DESIGNATION

γ UNIT WEIGHT (PCF)

q_u UNCONFINED COMPRESSION (PSI)

q_{st} SPLIT TENSILE STRENGTH (PSI)

LAB RESULTS

-200 FINES PASSING NO. 200 SIEVE (%)

NMC NATURAL MOISTURE CONTENT (%)

OC ORGANIC CONTENT (%)

LL LIQUID LIMIT (%)

PI PLASTICITY INDEX (%)

NP NON PLASTIC

DATE		BY	DESCRIPTION	DATE	BY	DESCRIPTION	DRAWN BY			CHECKED BY			DESIGNED BY			CHECKED BY			APPROVED BY			ENGINEER OF RECORD			FLORIDA DEPARTMENT OF TRANSPORTATION			SHEET TITLE								
							DYG			ALG			.			.			CHING L. KUO, P.D., P.E.			PROFESSIONAL SERVICE INDUSTRIES, INC. 5801 BENJAMIN CENTER DR., SUITE 112 TAMPA, FL 33634 (813) 886-1075 FLORIDA ENGINEERING CERTIFICATE OF AUTHORIZATION No. 3684 CHING L. KUO, P.D., P.E. FLORIDA LICENSE No. 36115			SR 400			HILLSBOROUGH			258415-1-52-01			REPORT OF CORE BORINGS (24 OF 24)		
																			AA4 (SEGMENTAL/BULB-T)			BRIDGE NO. 100711														
																						PROJECT NAME			SHEET NO.											
																						1-4/LEE ROY SELMON EXPRESSWAY INTERCHANGE			B9-53											

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G5-23.003, F.A.C.