EXCAVATION – PHASE 1

NEW CENTER FOR EMERGENCY SERVICES
25 ROCKY HOLLOW ROAD
NORTH STONINGTON, CT 06359

S/P+A PROJECT NO. 13.220

DATE: November 7, 2014

The following changes to the Drawings and Project Specifications shall become a part of the Drawings and Project Specifications; superseding previously issued Drawings and Project Specifications to the extent modified by Addendum No. 2.

General Information:

1. Added Preliminary Geotechnical Study, prepared by Dr. Clarence Welti, PE, PC dated 11/7/14.

The addendum consists of (18) pages of 8½" x 11" text, inclusive of this page.

End of Addendum '2'

DR. CLARENCE WELTI, P.E., P.C.

GEOTECHNICAL ENGINEERING

227 Williams Street · P.O. Box 397
Glastonbury, CT 06033-0397

(860) 633-4623 / FAX (860) 657-2514

November 7, 2014

Mr. David J. Stein, AIA
Principal/Project Manager
Silver/Petrucelli & Associates
3190 Whitney Avenue, Bldg 2
Hamden, CT 06518

Re: Preliminary Geotechnical Study for Proposed EMS Facility, Corner of Rocky Hollow Road and Norwich Westerly Road (CT Route2), North Stonington, CT

Dear David:

1.0 Herewith are the boring data pertaining to the above. Nine borings were drilled at the proposed building and areas of site development to a maximum depth of 21.5 feet below the existing grades or to auger refusal if above that depth. The boring locations are shown on the attached plan. *The borings were drilled by Clarence Welti Associates, Inc. and sampling was conducted by this firm solely to obtain indications of subsurface conditions as part of a geotechnical exploration program. No services were performed to evaluate subsurface environmental conditions.*

2.0 The **Subject Project** will include the construction of a one to two story slab on grade Emergency Medical Services Facility building with a footprint of about18,500 sf. The topography in the building area ranges from Elev. 210 to Elev. 194. The main building floor will at about Elev.194.5. The site grading includes cuts to the rear of the building as deep as 27 feet below existing grade (Elev.218 to Elev. 191). Nearly the entire developed site is in a cut, a substantial part of which may be rock. The overall topography of the site has about 40 feet of relief (Elev.230 to Elev. 190)

3.0 The **Geologic Origin** of the natural inorganic soils is from glacial moraine deposits. These deposits consist generally of dense sand with little to some silt and gravel and few cobbles and boulders overlying bedrock. Based on geologic mapping the bedrock is Granite Gneiss with foliation to the north and north west at 30 to 60 degrees.

3.1 The **Soils Cross Section** from the borings is generally as follows:

Topsoil to 4" to 6"; Deeper at tree root bulbs

Subsoils; fine SAND, some Silt, trace Gravel and Roots to about 2 feet, loose frost disturbed soils
Note: This material if in wooded area would have to stripped under building and paved area, where in proximity to the proposed grades.

Fine to medium SAND, some Gravel, little to some Silt with Cobbles and Boulders to auger refusal at 7 to 21+ feet, dense to very dense

3.2 The **Water Table** was not apparent in the borings or on sample inspection. It is possible the water table would be encountered in the deep cuts (which may be partially in rock) on the easterly part of the site.

4.0 The **Criteria for Foundation Type and Loading** are as follows:

1. The maximum total settlement shall not exceed 3/4" and the maximum differential settlement shall not exceed ½ the maximum settlement.

2. The Foundations and Structures must address the seismic section of the building code

3. The Slab at Grade floors must not settle differentially more than ½" in excess of the main structure subsidence.

4.1 Regarding item 2 (above), the seismic site soil profile classification can be "**C**". The mapped MCE spectral response acceleration values for North Stonington, CT are $S_1 = \mathbf{0.058}$ for one second period and $S_S = \mathbf{0.214}$ for short period. For transfer of ground shear into the soil the ultimate friction factor can be **0.60.**

5.0 Regarding the **Foundation Type,** the building can be supported on spread footings. The footing sub grades shall be on the natural inorganic soils, or on a controlled fill placed after the removal of any existing fills, and frost disturbed subsoils (assume frost disturbed to at least 2 feet below the existing grades). The natural soils may be sensitive to remolding when wet. To address this condition there shall be a minimum 4" of 3/8" crushed stone beneath the footings on the natural soils and as initial layer beneath controlled fills where atop a wet sub grade. Controlled fill shall conform to section 6.0 below and shall extend horizontally beyond the footings for a distance equal to at least the depth of fill beneath the footings.

5.1 The **Allowable Bearing Pressure** for spread footings on the crushed stone layer atop the natural soils or on the controlled fill can be 6,000 psf. The allowable loading can be increased by 1/3 for seismic or wind loading. At retaining walls the maximum pressure on the toe can be 50% higher than the average pressure, cited above.

5.2 The static **Lateral Soil Loading** on retaining walls that are part of the building, shall be based on at-rest pressure using the coefficient $K_O = \mathbf{0.45}$ as cited in the table below. Lateral soil loading

on retaining walls apart from the building can be designed with active pressure using the coefficient K_A = **0.28** for level backfill. The ultimate sliding coefficient for concrete cast on crushed stone or on controlled fill is **0.60.**

5.3 The **Frost Protection Depth** is 3.5 feet below the finish grades in areas, which are exposed to weather.

5.4 Summary of Foundation Design Parameters:

Parameter	Value
Allowable Bearing Pressure	6,000 psf
Soil Unit Weight (Backfill) *	125 pcf
Internal Friction Angle (Backfill) *	34°
At-Rest Pressure Coefficient, K_O	0.45
Active Pressure Coefficient, K_A (level backfill)	0.28
Ultimate Sliding Coefficient, concrete on crushed stone over soil	0.60
Subgrade modulus over compacted processed stone base for slab design	250 pci
Seismic Site Soil Profile Classification	C
Mapped MCE Spectral Response Acceleration for one second period, S_1	0.058
Mapped Spectral Response Acceleration for short period, S_S	0.214
Frost Protection Depth	3.5 feet

* Backfill material conforming to section 6.0 below

6.0 Regarding **Controlled Fill, Backfill for Retaining Walls and Excavations at Columns and Walls, plus Slab at Grade Underlayment** (to 4" below the slab bottom) the material shall conform to the following or be 3/8" crushed stone:

Percent Passing	Sieve Size
100	3.5"

50 - 100	3/4"
25 - 75	No.4

The fraction, passing the No.4 sieve shall have less than 15%, passing the No. 200 sieve.

All backfill and fill must be compacted to at least 95% of modified optimum density.

The on site soils will generally not conform to the above gradation.

6.1 All existing fill, topsoil and subsoils shall be removed beneath the building floor slabs and replaced with controlled fill conforming to section 6.0 above. There shall be at least 16" of controlled fill beneath slabs on grade. The bottom 8" in fire equipment bays shall be with compacted material conforming to section 6.0 above. The top 8" shall be compacted aggregate base conforming to the following:

3/4" Minus Processed Stone Base

Percent Passing	Grain Size
100	1.25"
90 - 100	1"
75 - 100	3/4"
25 - 60	1/4"
10 - 35	No. 40
3 - 12	No.100
0 - 5	No. 200

The top 8" of base material shall be compacted to at least 97% of modified optimum density

In areas apart from the fire equipment bays there shall be 12" of gravel conforming to section 6.0 above. The final 4" layer beneath the floor slab shall be with shall be with 3/8" crushed stone or processed base. A vapor retarder is required beneath the slab at grade floors.

6.2 The exterior apron for fire trucks, where trucks may be parked in the summer, should be with at least 7" of concrete on 6" of the processed stone base and 8" of gravel subbase. The remainder of the pavement with fire truck access shall have a pavement section with at least 6" of bituminous concrete over 6" of processed stone base and 10" of gravel subbase

7.0 Regarding **Earthwork,** excavations in the natural soils will fall in OSHA Class B. This will require sloping of excavations, which are unshored and exceed 5 feet in height, to be cut back to slopes less than 45° from the horizontal (1H:1V).

8.0 Regarding **New Pavements,** there shall be at least 10" of CTDOT gravel subbase or material conforming to section 6.0 above placed beneath the pavement sections. If the sub grade are on wet subsoils, the subsoils will probably have to be removed to provide a stable sub grade for placement of fills and the pavement sections. The recommended pavement sections above the subbase are as follows:

1. Passenger Car Parking: 3.5" of bituminous concrete on 6" of processed stone base

8.1 For **Portland Cement Concrete** the concrete thickness for light truck traffic would be 6". This would be placed on 6" of CTDOT Gravel Subbase. For passenger car parking the concrete thickness would be 5" atop 10" of CTDOT Gravel Subbase. ***For concrete aprons (pedestrian access) contiguous to the building there should be free draining material, either gravel subbase or controlled fill conforming to section 6.0 above, to 18" below grade. This is to avoid movement of the slab at flush doorways.***

9.0 Regarding earthwork the borings in the deep cut areas encountered refusal at depths considerably above the proposed finished grades. Rock excavation may be required, although some of the refusals may be on boulders. Apart from the likelihood of bedrock excavation it is possible that 10% of the earth excavation will include boulders over ½ cubic yard. This is based on a number of moraine excavation in southeastern Connecticut. ***Additional borings and/or probes will be required to establish proposed slopes and an evaluation of earth, rock and boulder quantities.***

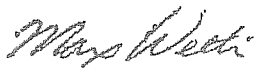
10.0 This report has been prepared for specific application to the subject project in accordance with generally accepted soil and foundation engineering practices. No other warranty, express or implied, is made. In the event that any changes in the nature, design and location of structures are planned, the conclusions and recommendations contained in this report should not be considered valid unless the changes are reviewed and conclusions of this report modified or verified in writing.

The analyses and recommendations submitted in this report are based in part upon data obtained from referenced explorations. The extent of variations between explorations may not become evident until construction. If variations then appear evident, it will be necessary to re-evaluate the recommendations of this report.

The report is labeled "preliminary" based on the limited information of subsurface information in the area with deep cuts. Additional soil/rock exploration will be required to establish slope designs and possible treatment of pavements in rock cuts.

If you have any questions, please call our office.

Very truly yours,

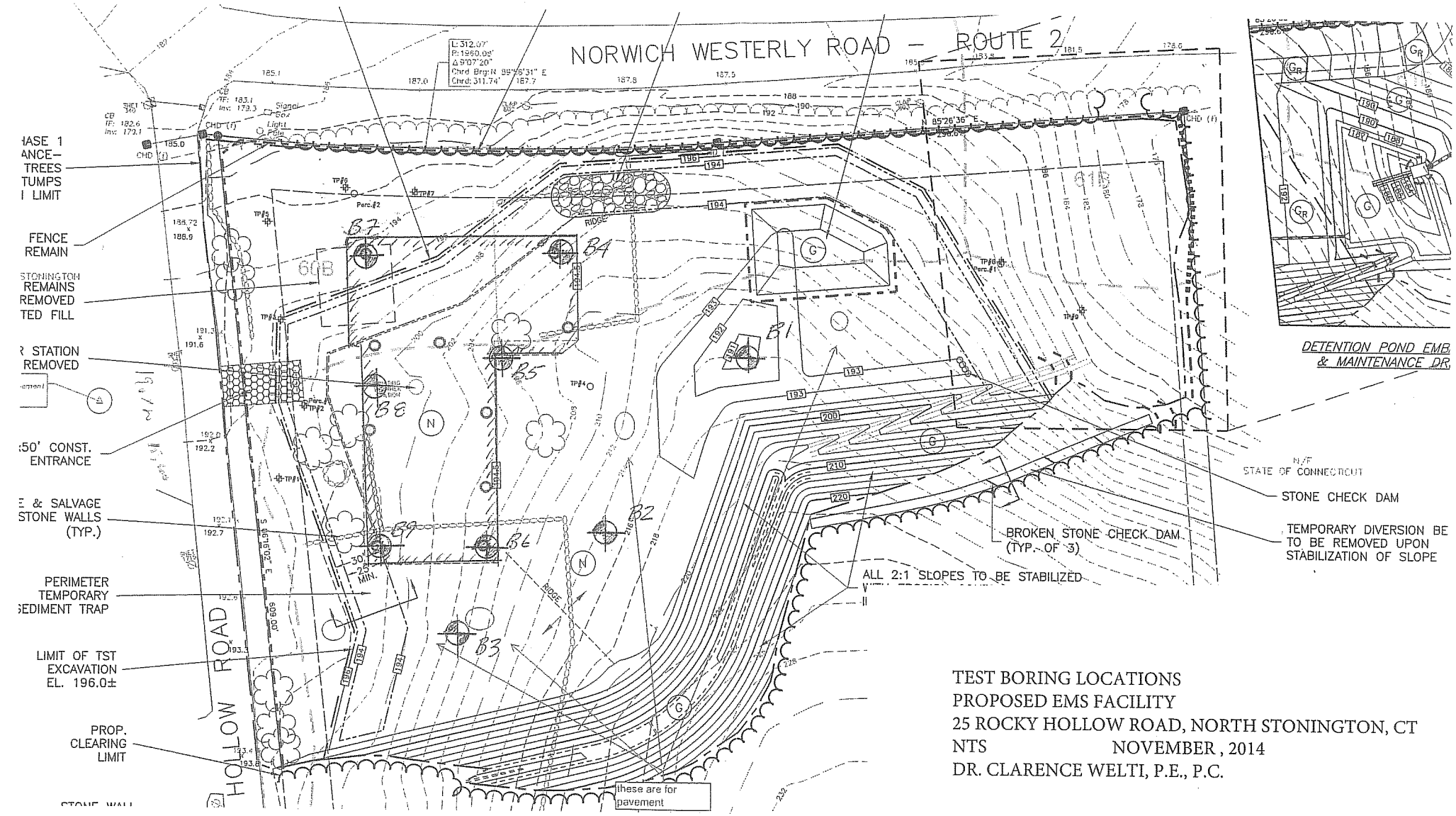


Max Welti, P.E.

Clarence Welti Ph.D., P. E.
President, Dr. Clarence Welti, P.E.; P.C.

Appendix

Test Boring Data



TEST BORING LOCATIONS
PROPOSED EMS FACILITY
25 ROCKY HOLLOW ROAD, NORTH STONINGTON, CT
NTS NOVEMBER , 2014
DR. CLARENCE WELTI, P.E., P.C.

CLARENCE WELTI ASSOC., INC. P.O. BOX 397 GLASTONBURY, CONN 06033	CLIENT SILVER PETRUCELLI & ASSOCIATES, INC.	PROJECT NAME CENTER FOR EMERGENCY SERVICES LOCATION 25 ROCKY HOLLOW ROAD NORTH STONINGTON, CT.

	AUGER	CASING	SAMPLER	CORE BAR.
TYPE	HSA		SS	
SIZE I.D.	3.75"		1.375"	
HAMMER WT.			140 lbs	
HAMMER FALL			30"	

OFFSET
LINE & STA.
N. COORDINATE
E. COORDINATE

SURFACE ELEV.

HOLE NO. B-1

GROUND WATER OBSERVATIONS
AT none FT. AFTER 0 HOURS
AT FT. AFTER HOURS

START DATE 11/4/14
FINISH DATE 11/4/14

DEPTH	SAMPLE NO.	BLOWS/6"	DEPTH	A	STRATUM DESCRIPTION + REMARKS	ELEV.
0	1	3-7-8-8	0.00'-2.00'		TOPSOIL 0.56 BR. FINE-MED.SAND, SOME GRAVEL, LITTLE SILT, FEW COBBLES & BOULDERS	
	2	6-33-36-60	2.00'-3.83'			
5	3	35-60	5.00'-5.75'			
					AUGER REFUSAL @ 7.0' 7.0 NOTE: MADE 2 ADDITIONAL ATTEMPTS WITH REFUSAL 6'& 7'	
10						
15						
20						
25						
30						
35						

LEGEND: COL. A:
SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON
PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER: T. CZMYR
INSPECTOR:

SHEET 1 OF 1 HOLE NO. **B-1**

CLARENCE WELTI ASSOC., INC. P.O. BOX 397 GLASTONBURY, CONN 06033	CLIENT SILVER PETRUCELLI & ASSOCIATES, INC.	PROJECT NAME CENTER FOR EMERGENCY SERVICES LOCATION 25 ROCKY HOLLOW ROAD NORTH STONINGTON, CT.

	AUGER	CASING	SAMPLER	CORE BAR.
TYPE	HSA		SS	
SIZE I.D.	3.75"		1.375"	
HAMMER WT.			140 lbs	
HAMMER FALL			30"	

OFFSET
LINE & STA.
N. COORDINATE
E. COORDINATE

SURFACE ELEV.

HOLE NO. B-2

GROUND WATER OBSERVATIONS
AT none FT. AFTER 0 HOURS
AT FT. AFTER HOURS

START DATE 11/4/14
FINISH DATE 11/4/14

DEPTH	SAMPLE NO.	BLOWS/6"	DEPTH	A	STRATUM DESCRIPTION + REMARKS	ELEV.
0	1	10-12-14-15	0.00'-2.00'		TOPSOIL 0.33 BR. FINE-MED. SAND, SOME GRAVEL, LITTLE SILT, FEW COBBLES 2.0 LIGHT GREY FINE-MED.SAND, LITTLE SILT & GRAVEL, FEW COBBLES	
	2	12-30-60	2.00'-3.50'			
5	3	35-37-60	5.00'-6.50'		5.0 GREY FINE-CRS. SAND, SOME SILT, LITTLE GRAVEL, FEW COBBLES & BOULDERS	
10	4	60	10.00'-10.33'		11.0 AUGER REFUSAL @ 11.0' NOTE: MADE 2 ADDIITIONAL ATTEMPTS WITH REFUSAL AT 5' & 11'	
15						
20						
25						
30						
35						

LEGEND: COL. A:

SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON

PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER: T. CZMYR
INSPECTOR:

SHEET 1 OF 1 | HOLE NO. B-2

CLARENCE WELTI ASSOC., INC. P.O. BOX 397 GLASTONBURY, CONN 06033	CLIENT SILVER PETRUCELLI & ASSOCIATES, INC.	PROJECT NAME CENTER FOR EMERGENCY SERVICES LOCATION 25 ROCKY HOLLOW ROAD NORTH STONINGTON, CT.

	AUGER	CASING	SAMPLER	CORE BAR.
TYPE	HSA		SS	
SIZE I.D.	3.75"		1.375"	
HAMMER WT.			140 lbs	
HAMMER FALL			30"	

OFFSET
LINE & STA.
N. COORDINATE
E. COORDINATE

SURFACE ELEV.
HOLE NO. B-3

GROUND WATER OBSERVATIONS
AT none FT. AFTER 0 HOURS
AT FT. AFTER HOURS

START DATE 11/4/14
FINISH DATE 11/4/14

DEPTH	SAMPLE NO.	BLOWS/6"	DEPTH	A	STRATUM DESCRIPTION + REMARKS	ELEV.
0	1	1-3-10-12	0.00'-2.00'		TOPSOIL 0.42 BR. FINE-MED. SAND, LITTLE SILT & GRAVEL, FEW COBBLES	
	2	8-9-16-29	2.00'-4.00'		2.0 LIGHT BR. FINE-MED. SAND, LITTLE SILT & GRAVEL, FEW COBBLES	
	3	23-60	4.00'-4.67'			
5					7.0 LIGHT GREY FINE-CRS. SAND, LITTLE SILT & GRAVEL, FEW COBBLES & BOULDERS	
10	4	28-38-30	10.00'-11.50'			
15	5	32-35-34	15.00'-16.50'			
					18.0 AUGER REFUSAL @ 18.0'	
20						
25						
30						
35						

LEGEND: COL. A:

SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON

PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER: T. CZMYR
INSPECTOR:

SHEET 1 OF 1 | HOLE NO. B-3

CLARENCE WELTI ASSOC., INC. P.O. BOX 397 GLASTONBURY, CONN 06033	CLIENT SILVER PETRUCELLI & ASSOCIATES, INC.	PROJECT NAME CENTER FOR EMERGENCY SERVICES LOCATION 25 ROCKY HOLLOW ROAD NORTH STONINGTON, CT.

	AUGER	CASING	SAMPLER	CORE BAR.
TYPE	HSA		SS	
SIZE I.D.	3.75"		1.375"	
HAMMER WT.			140 lbs	
HAMMER FALL			30"	

OFFSET
LINE & STA.
N. COORDINATE
E. COORDINATE

SURFACE ELEV.

HOLE NO. B-4

GROUND WATER OBSERVATIONS
AT none FT. AFTER 0 HOURS
AT FT. AFTER HOURS

START DATE 11/3/14
FINISH DATE 11/3/14

DEPTH	SAMPLE NO.	BLOWS/6"	DEPTH	A	STRATUM DESCRIPTION + REMARKS	ELEV.
0	1	3-4-5-8	0.00'-2.00'		TOPSOIL 0.5 LIGHT BR. FINE-MED. SAND, LITTLE SILT & GRAVEL	
	2	12-22-30-33	2.00'-4.00'			
5	3	60	4.00'-4.50'		LIGHT BR. FINE-MED.SAND, LITTLE SILT & GRAVEL 4.0	
10	4	14-25-60	10.00'-11.50'			
15	5	60	15.00'-15.25'		LIGHT BR./GREY FINE SAND, SOME SILT, TRACE GRAVEL, FEW COBBLES 15.0	
20	6	60	20.00'-20.33'		BOTTOM OF BORING @ 20.33' 20.33	
25						
30						
35						

LEGEND: COL. A:

SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON

PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER: T. CZMYR
INSPECTOR:

SHEET 1 OF 1 | HOLE NO. B-4

CLARENCE WELTI ASSOC., INC. P.O. BOX 397 GLASTONBURY, CONN 06033	CLIENT SILVER PETRUCELLI & ASSOCIATES, INC.	PROJECT NAME CENTER FOR EMERGENCY SERVICES LOCATION 25 ROCKY HOLLOW ROAD NORTH STONINGTON, CT.

	AUGER	CASING	SAMPLER	CORE BAR.
TYPE	HSA		SS	
SIZE I.D.	3.75"		1.375"	
HAMMER WT.			140 lbs	
HAMMER FALL			30"	

OFFSET
LINE & STA.
N. COORDINATE
E. COORDINATE

SURFACE ELEV.

HOLE NO. B-5

GROUND WATER OBSERVATIONS
AT none FT. AFTER 0 HOURS
AT FT. AFTER HOURS

START DATE 11/3/14
FINISH DATE 11/3/14

DEPTH	SAMPLE NO.	BLOWS/6"	DEPTH	A	STRATUM DESCRIPTION + REMARKS	ELEV.
0	1	5-10-5-6	0.00'-2.00'		BR. FINE-MED. SAND, SOME SILT, TRACE GRAVEL & COBBLES	
	2	5-10-13-25	2.00'-4.00'			
					3.5	
	3	60	4.00'-4.50'		LIGHT GREY/BR. FINE-CRS. SAND, LITTLE SILT & GRAVEL, FEW COBBLES	
5						
10					10.0	
					AUGER REFUSAL @ 10.0'	
15						
20						
25						
30						
35						

LEGEND: COL. A:

SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON

PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER: T. CZMYR
INSPECTOR:

SHEET 1 OF 1 | HOLE NO. B-5

CLARENCE WELTI ASSOC., INC. P.O. BOX 397 GLASTONBURY, CONN 06033	CLIENT SILVER PETRUCELLI & ASSOCIATES, INC.	PROJECT NAME CENTER FOR EMERGENCY SERVICES LOCATION 25 ROCKY HOLLOW ROAD NORTH STONINGTON, CT.

	AUGER	CASING	SAMPLER	CORE BAR.
TYPE	HSA		SS	
SIZE I.D.	3.75"		1.375"	
HAMMER WT.			140 lbs	
HAMMER FALL			30"	

OFFSET
LINE & STA.
N. COORDINATE
E. COORDINATE

SURFACE ELEV.

HOLE NO. B-6

GROUND WATER OBSERVATIONS
AT none FT. AFTER 12 HOURS
AT FT. AFTER HOURS

START DATE 11/3/14
FINISH DATE 11/3/14

DEPTH	SAMPLE NO.	SAMPLE BLOWS/6"	SAMPLE DEPTH	A	STRATUM DESCRIPTION + REMARKS	ELEV.
0	1	3-12-5-60	0.00'-1.75'		TOPSOIL 0.50 BR. FINE-MED. SAND, SOME SILT, LITTLE GRAVEL	
					BOULDER 2.0	
	2	11-60	4.00'-4.92'		LIGHT GREY FINE-MED.SAND, SOME SILT, LITTLE GRAVEL, FEW COBBLES 4.0	
5						
10	3	21-60	10.00'-11.00'			
15	4	24-29-60	15.00'-15.92'			
20	5	7-5-2	20.00'-21.50'			
					BOTTOM OF BORING @ 21.5' 21.5	
25						
30						
35						

LEGEND: COL. A:

SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON

PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER: T. CZMYR
INSPECTOR:

SHEET 1 OF 1 | HOLE NO. B-6

CLARENCE WELTI ASSOC., INC. P.O. BOX 397 GLASTONBURY, CONN 06033	CLIENT SILVER PETRUCELLI & ASSOCIATES, INC.	PROJECT NAME CENTER FOR EMERGENCY SERVICES LOCATION 25 ROCKY HOLLOW ROAD NORTH STONINGTON, CT.

	AUGER	CASING	SAMPLER	CORE BAR.
TYPE	HSA		SS	
SIZE I.D.	3.75"		1.375"	
HAMMER WT.			140 lbs	
HAMMER FALL			30"	

OFFSET
LINE & STA.
N. COORDINATE
E. COORDINATE

SURFACE ELEV.

HOLE NO. B-7

GROUND WATER OBSERVATIONS
AT none FT. AFTER 0 HOURS
AT FT. AFTER HOURS

START DATE 11/3/14
FINISH DATE 11/3/14

DEPTH	SAMPLE NO.	BLOWS/6"	DEPTH	A	STRATUM DESCRIPTION + REMARKS	ELEV.
0	1	4-4-4-	0.00'-2.00'		TOPSOIL 0.42 BR. FINE-MED. SAND, LITTLE SILT & GRAVEL, TRACE ROOTS	
	2	20-10-12-18	2.00'-4.00'		2.0 BR. FINE-CRS. SAND, LITTLE SILT & GRAVEL	
	3	11-18-41-60	4.00'-5.92'		4.0 LIGHT BR. FINE-CRS. SAND, LITTLE SILT, TRACE GRAVEL, FEW COBBLES	
5						
10					10.0 BOTTOM OF BORING @ 10.0'	
15						
20						
25						
30						
35						

LEGEND: COL. A:

SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON

PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER: T. CZMYR
INSPECTOR:

SHEET 1 OF 1 | HOLE NO. B-7

CLARENCE WELTI ASSOC., INC. P.O. BOX 397 GLASTONBURY, CONN 06033	CLIENT SILVER PETRUCELLI & ASSOCIATES, INC.	PROJECT NAME CENTER FOR EMERGENCY SERVICES LOCATION 25 ROCKY HOLLOW ROAD NORTH STONINGTON, CT.

	AUGER	CASING	SAMPLER	CORE BAR.
TYPE	HSA		SS	
SIZE I.D.	3.75"		1.375"	
HAMMER WT.			140 lbs	
HAMMER FALL			30"	

OFFSET
LINE & STA.
N. COORDINATE
E. COORDINATE

SURFACE ELEV.

HOLE NO. B-8

GROUND WATER OBSERVATIONS
AT none FT. AFTER 0 HOURS
AT FT. AFTER HOURS

START DATE 11/3/14
FINISH DATE 11/3/14

DEPTH	SAMPLE NO.	SAMPLE BLOWS/6"	SAMPLE DEPTH	A	STRATUM DESCRIPTION + REMARKS	ELEV.
0	1	21-23-19-13	0.00'-2.00'		TOPSOIL 0.33 BR. FINE-MED. SAND, LITTLE SILT, TRACE GRAVEL, FEW COBBLES	
	2	14-30-60	2.00'-3.33'			
5	3	25-60	5.00'-5.75'			
					7.0 AUGER REFUSAL @ 7.0' NOTE: MADE 2 ADDTIONAL ATTEMPTS WITH REFUSAL AT 5' & 7'	
10						
15						
20						
25						
30						
35						

LEGEND: COL. A:
SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON
PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER: T. CZMYR
INSPECTOR:

SHEET 1 OF 1 | HOLE NO. B-8

CLARENCE WELTI ASSOC., INC. P.O. BOX 397 GLASTONBURY, CONN 06033	CLIENT SILVER PETRUCELLI & ASSOCIATES, INC.	PROJECT NAME CENTER FOR EMERGENCY SERVICES LOCATION 25 ROCKY HOLLOW ROAD NORTH STONINGTON, CT.

	AUGER	CASING	SAMPLER	CORE BAR.
TYPE	HSA		SS	
SIZE I.D.	3.75"		1.375"	
HAMMER WT.			140 lbs	
HAMMER FALL			30"	

OFFSET
LINE & STA.
N. COORDINATE
E. COORDINATE

SURFACE ELEV.

HOLE NO. B-9

GROUND WATER OBSERVATIONS
AT none FT. AFTER 0 HOURS
AT FT. AFTER HOURS

START DATE 11.4.14
FINISH DATE 11/4/14

DEPTH	SAMPLE NO.	BLOWS/6"	DEPTH	A	STRATUM DESCRIPTION + REMARKS	ELEV.
0	1	1-3-5-8	0.00'-2.00'		TOPSOIL 0.50 BR. FINE-MED. SAND, LITTLE SILT & GRAVEL, FEW COBBLES	
	2	15-23-25-30	2.00'-4.00'			
	3	29-60	4.00'-5.00'		4.0 LIGHT BR. FINE-CRS. SAND, LITTLE SILT & GRAVEL, FEW COBBLES	
5						
10	4	30-60	10.00'-10.75'			
15	5	60	15.00'-15.50'		15.5 BOTTOM OF BORING @ 15.5'	
20						
25						
30						
35						

LEGEND: COL. A:

SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON

PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50%

DRILLER: T. CZMYR
INSPECTOR:

SHEET 1 OF 1 | HOLE NO. B-9