APPENDIX A

LUMOS
& ASSOCIATES

TEST PIT No. TP-1

Logged By:	**B. Sexton**	Total Depth:	**14 feet**
Date Logged:	**3-25-2015**	Water Depth:	**No groundwater encountered**
Drill Type:	**Case 590 Backhoe**	Ground Elev.:	**E.G.S. feet ±**

Sample Type: Percolation Test; Split Spoon; Ziplock Sample; California Sampler; Bulk Sample; Static Water Table

Depth in Feet	Graphic Log	Sample Type	SOIL DESCRIPTION	Natural Moisture Content, %	Moisture Content, %	Dry Density, pcf	Liquid Limit, %	Plasticity Index, %	Gravel, % (3" - #4 Sieve)	Sand, % (#4 - #200 Sieve)	Fines, % (< #200 Sieve)	Direct Shear	Expansion Index
1		B	**Brown Silty SAND (SM).** Moist, Medium Dense. Estimated 80% Coarse to Fine Sand and 20% Non-Plastic Silt. In Place Field Density Test Performed at 1'.		7.4	118.2							
2		B	**Light Brown Silty SAND (SM).** Slightly Moist, Dense, Moderately Cemented. Estimated 75% Coarse to Fine Sand and 25% Non-Plastic Silt. In Place Field Density Test Performed at 2.5'.		6.9	113.2							
3			Slight Caving from 3' - 4'. In Place Field Density Test Performed at 3.5'.		5.1	105.9							
4													
5			**Light to Medium Brown Poorly Graded SAND (SP).** Moist, Medium Dense. Estimated 95% Coarse to Fine Sand and 5% Non-Plastic Silt.										
6		B											
7													
8													
9			Slightly Cemented Below 9'.										
10													
11													
12													
13													
14													

Test pit terminated at 14 feet.
Test Pits backfilled without compaction verification

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LOG OF EXPLORATORY TEST PIT

Job Number: 8747.000 Date: April 2015

PLATE A-1

TEST PIT No. TP-2

Logged By:	**B. Sexton**	Total Depth:	**14 feet**
Date Logged:	**3-25-2015**	Water Depth:	**No groundwater encountered**
Drill Type:	**Case 590 Backhoe**	Ground Elev.:	**E.G.S. feet ±**

Percolation Test | Split Spoon | Ziplock Sample | California Sampler | Bulk Sample | Static Water Table

Depth in Feet	Graphic Log	Sample Type	SOIL DESCRIPTION	Natural Moisture Content, %	Moisture Content, %	Dry Density, pcf	Liquid Limit, %	Plasticity Index, %	Gravel, % (3" - #4 Sieve)	Sand, % (#4 - #200 Sieve)	Fines, % (< #200 Sieve)	Direct Shear	Expansion Index
1		B	**Brown Silty SAND (SM).** Moist, Medium Dense. Estimated 80% Coarse to Fine Sand and 20% Non-Plastic Silt.										
2			2.0										
3		B	**Light Brown Silty SAND (SM).** Slightly Moist, Dense, Moderately Cemented. Estimated 75% Coarse to Fine Sand and 25% Non-Plastic Silt.										
4													
5			5.0										
6		B	**Light to Medium Brown Poorly Graded SAND (SP).** Moist, Medium Dense. Estimated 95% Coarse to Fine Sand and 5% Non-Plastic Silt.										
7													
8			Evidence of Slight Mottling at 8'.										
9													
10													
11			Slightly Cemented Below 11'.										
12													
13													
14			14.0										

Test pit terminated at 14 feet.
Test Pits backfilled without compaction verification

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LOG OF EXPLORATORY TEST PIT

Job Number: 8747.000 Date: April 2015

PLATE A-2

TEST PIT No. TP-3

Logged By:	**B. Sexton**	Total Depth:	**14 feet**
Date Logged:	**3-25-2015**	Water Depth:	**No groundwater encountered**
Drill Type:	**Case 590 Backhoe**	Ground Elev.:	**E.G.S. feet ±**

Percolation Test | Split Spoon | Ziplock Sample | California Sampler | Bulk Sample | Static Water Table

Depth in Feet	Graphic Log	Sample Type	SOIL DESCRIPTION	Natural Moisture Content, %	Moisture Content, %	Dry Density, pcf	Liquid Limit, %	Plasticity Index, %	Gravel, % (3" - #4 Sieve)	Sand, % (#4 - #200 Sieve)	Fines, % (< #200 Sieve)	Direct Shear	Expansion Index
			Brown Silty SAND (SM). Moist, Medium Dense.										
1		B	In Place Field Density Test Performed at 1'.	4.4	6.5	118.8	NP	NP	1.8	78.4	19.8		
2			2.0										
		B	**Light Brown Silty SAND (SM).** Slightly Moist, Dense, Moderately Cemented. Estimated 75% Coarse to Fine Sand and 25% Non-Plastic Silt. In Place Field Density Test Performed at 2.5'.		4.0	108.2							
3			In Place Field Density Test Performed at 3.5'.		8.7	107.9							
4													
5													
6													
7													
8													
9													
10													
11			11.0										
			Light to Medium Brown Poorly Graded SAND (SP). Moist, Medium Dense. Estimated 95% Coarse to Fine Sand and 5% Non-Plastic Silt.										
12		B											
13													
14			14.0										

Test pit terminated at 14 feet.
Test Pits backfilled without compaction verification

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LOG OF EXPLORATORY TEST PIT

Job Number: 8747.000 Date: April 2015

PLATE A-3

TEST PIT No. TP-4

Logged By:	**B. Sexton**	Total Depth:	**14 feet**
Date Logged:	**3-25-2015**	Water Depth:	**No groundwater encountered**
Drill Type:	**Case 590 Backhoe**	Ground Elev.:	**E.G.S. feet ±**

Sample Type: Percolation Test; Split Spoon; Ziplock Sample; California Sampler; Bulk Sample; Static Water Table

Depth in Feet	Graphic Log	Sample Type	SOIL DESCRIPTION	Natural Moisture Content, %	Moisture Content, %	Dry Density, pcf	Liquid Limit, %	Plasticity Index, %	Gravel, % (3" - #4 Sieve)	Sand, % (#4 - #200 Sieve)	Fines, % (< #200 Sieve)	Direct Shear	Expansion Index
1		Z	**Brown Silty SAND (SM).** Moist, Medium Dense. Estimated 80% Coarse to Fine Sand and 20% Non-Plastic Silt.										
2		Z	**Light Brown Silty SAND (SM).** Slightly Moist, Dense, Moderately Cemented. Estimated 75% Coarse to Fine Sand and 25% Non-Plastic Silt.										
3													
4													
5													
6													
7													
8													
9													
10			**Light to Medium Brown Poorly Graded SAND (SP).** Moist, Medium Dense. Estimated 95% Coarse to Fine Sand and 5% Non-Plastic Silt.										
11													
12		Z											
13													
14													

Test pit terminated at 14 feet.
Test Pits backfilled without compaction verification

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LOG OF EXPLORATORY TEST PIT

Job Number: 8747.000

Date: April 2015

PLATE

A-4

TEST PIT No. TP-5

Logged By:	**B. Sexton**	Total Depth:	**13.5 feet**
Date Logged:	**3-25-2015**	Water Depth:	**No groundwater encountered**
Drill Type:	**Case 590 Backhoe**	Ground Elev.:	**E.G.S. feet ±**

Sample Type: Percolation Test; Split Spoon; Ziplock Sample; California Sampler; Bulk Sample; Static Water Table

Depth in Feet	Graphic Log	Sample Type	SOIL DESCRIPTION	Natural Moisture Content, %	Moisture Content, %	Dry Density, pcf	Liquid Limit, %	Plasticity Index, %	Gravel, % (3" - #4 Sieve)	Sand, % (#4 - #200 Sieve)	Fines, % (< #200 Sieve)	Direct Shear	Expansion Index
1		B	**Brown Silty SAND (SM).** Moist, Medium Dense. Estimated 80% Coarse to Fine Sand and 20% Non-Plastic Silt. In Place Field Density Test Performed at 1'.		5.8	114.9							
2			2.0 **Light Brown Silty SAND (SM).** Slightly Moist, Dense, Moderately Cemented. In Place Field Density Test Performed at 2.5'.		4.1	116.5							
3			In Place Field Density Test Performed at 3.5'.		5.7	112.8							
4		B		1.9			NP	NP	0.3	73.9	25.8	34.6	
5													
6													
7													
8			8.5 **Light to Medium Brown Poorly Graded SAND (SP).** Moist, Medium Dense. Estimated 95% Coarse to Fine Sand and 5% Non-Plastic Silt.										
9		Z											
10													
11													
12													
13			13.5										

Test pit terminated at 13.5 feet.
Test Pits backfilled without compaction verification

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LOG OF EXPLORATORY TEST PIT

Job Number: 8747.000 Date: April 2015

PLATE A-5

TEST PIT No. TP-6

Logged By:	B. Sexton	Total Depth:	14 feet
Date Logged:	3-25-2015	Water Depth:	No groundwater encountered
Drill Type:	Case 590 Backhoe	Ground Elev.:	E.G.S. feet ±

Sample Type: Percolation Test; Split Spoon; Ziplock Sample; California Sampler; Bulk Sample; Static Water Table

Depth in Feet	Graphic Log	Sample Type	SOIL DESCRIPTION	Natural Moisture Content, %	Moisture Content, %	Dry Density, pcf	Liquid Limit, %	Plasticity Index, %	Gravel, % (3" - #4 Sieve)	Sand, % (#4 - #200 Sieve)	Fines, % (< #200 Sieve)	Direct Shear	Expansion Index
1		B	**Brown Silty SAND (SM).** Moist, Medium Dense. Estimated 80% Coarse to Fine Sand and 20% Non-Plastic Silt. In Place Field Density Test Performed at 1'.		5.5	105.5							
2			In Place Field Density Test Performed at 2.5'.		4.5	108.6							
3			3.0										
4		B	**Light Brown Silty SAND (SM).** Slightly Moist, Dense, Moderately Cemented. Estimated 75% Coarse to Fine Sand and 25% Non-Plastic Silt. In Place Field Density Test Performed at 3.5'.		4.1	113.0							
5													
6													
7													
8													
9			9.0										
10			**Light to Medium Brown Poorly Graded SAND (SP).** Moist, Medium Dense. Estimated 95% Coarse to Fine Sand and 5% Non-Plastic Silt.										
11		Z											
12													
13													
14			14.0										

Test pit terminated at 14 feet.
Test Pits backfilled without compaction verification

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LOG OF EXPLORATORY TEST PIT

Job Number: 8747.000 Date: April 2015

PLATE A-6

TEST PIT No. TP-7

Logged By:	B. Sexton	Total Depth:	13 feet
Date Logged:	3-25-2015	Water Depth:	No groundwater encountered
Drill Type:	Case 590 Backhoe	Ground Elev.:	E.G.S. feet ±

Sample Type: Percolation Test; Split Spoon; Ziplock Sample; California Sampler; Bulk Sample; Static Water Table

Depth in Feet	Graphic Log	Sample Type	SOIL DESCRIPTION	Natural Moisture Content, %	Moisture Content, %	Dry Density, pcf	Liquid Limit, %	Plasticity Index, %	Gravel, % (3" - #4 Sieve)	Sand, % (#4 - #200 Sieve)	Fines, % (< #200 Sieve)	Direct Shear	Expansion Index
1		Z	**Brown Silty SAND (SM).** Moist, Medium Dense. Estimated 80% Coarse to Fine Sand and 20% Non-Plastic Silt. In Place Field Density Test Performed at 1'.		5.8	102.8							
2			In Place Field Density Test Performed at 2.0'.		8.2	106.6							
3			3.0										
4		Z	**Light Brown Silty SAND (SM).** Slightly Moist, Dense, Moderately Cemented. Estimated 75% Coarse to Fine Sand and 25% Non-Plastic Silt. In Place Field Density Test Performed at 3.0'.		7.7	109.8							
5													
6													
7													
8													
9			9.0										
10			**Light to Medium Brown Poorly Graded SAND (SP).** Moist, Medium Dense.										
11													
12		Z		3.9			NP	NP	0.5	94.7	4.8		
13													
			Test pit terminated at 13 feet. Test Pits backfilled without compaction verification 14.0										

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LOG OF EXPLORATORY TEST PIT

Job Number: 8747.000

Date: April 2015

PLATE

A-7

TEST PIT No. TP-8

Logged By:	**B. Sexton**	Total Depth:	**14 feet**
Date Logged:	**3-25-2015**	Water Depth:	**No groundwater encountered**
Drill Type:	**Case 590 Backhoe**	Ground Elev.:	**E.G.S. feet ±**

Percolation Test | Split Spoon | Ziplock Sample | California Sampler | Bulk Sample | Static Water Table

Depth in Feet	Graphic Log	Sample Type	SOIL DESCRIPTION	Natural Moisture Content, %	Moisture Content, %	Dry Density, pcf	Liquid Limit, %	Plasticity Index, %	Gravel, % (3" - #4 Sieve)	Sand, % (#4 - #200 Sieve)	Fines, % (< #200 Sieve)	Direct Shear	Expansion Index
1, 2		Z	**Brown Silty SAND (SM).** Moist, Medium Dense. Estimated 80% Coarse to Fine Sand and 20% Non-Plastic Silt. (2.5)										
3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14		Z, Z	**Light Brown Silty SAND (SM).** Slightly Moist, Dense, Moderately Cemented. Estimated 75% Coarse to Fine Sand and 25% Non-Plastic Silt. Slight Evidence of Mottling at 12.5'. Less Cemented Below 12.5'. (14.0)										

Test pit terminated at 14 feet.
Test Pits backfilled without compaction verification

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LOG OF EXPLORATORY TEST PIT

Job Number: 8747.000

Date: April 2015

PLATE

A-8

SOIL CLASSIFICATION CHART

MAJOR DIVISIONS			SYMBOLS GRAPH	SYMBOLS LETTER	TYPICAL DESCRIPTIONS
COARSE GRAINED SOILS MORE THAN 50% OF MATERIAL IS LARGER THAN NO. 200 SIEVE SIZE	GRAVEL AND GRAVELLY SOILS MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE	CLEAN GRAVELS (LITTLE OR NO FINES)		GW	WELL-GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES
				GP	POORLY-GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES
		GRAVELS WITH FINES (APPRECIABLE AMOUNT OF FINES)		GM	SILTY GRAVELS, GRAVEL - SAND - SILT MIXTURES
				GC	CLAYEY GRAVELS, GRAVEL - SAND - CLAY MIXTURES
	SAND AND SANDY SOILS MORE THAN 50% OF COARSE FRACTION PASSING ON NO. 4 SIEVE	CLEAN SANDS (LITTLE OR NO FINES)		SW	WELL-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
				SP	POORLY-GRADED SANDS, GRAVELLY SAND, LITTLE OR NO FINES
		SANDS WITH FINES (APPRECIABLE AMOUNT OF FINES)		SM	SILTY SANDS, SAND - SILT MIXTURES
				SC	CLAYEY SANDS, SAND - CLAY MIXTURES
FINE GRAINED SOILS MORE THAN 50% OF MATERIAL IS SMALLER THAN NO. 200 SIEVE SIZE	SILTS AND CLAYS	LIQUID LIMIT LESS THAN 50		ML	INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS OR CLAYEY SILTS WITH SLIGHT PLASTICITY
				CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
				OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY
	SILTS AND CLAYS	LIQUID LIMIT GREATER THAN 50		MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SAND OR SILTY SOILS
				CH	INORGANIC CLAYS OF HIGH PLASTICITY
				OH	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS
HIGHLY ORGANIC SOILS				PT	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS

NOTE: DUAL SYMBOLS ARE USED TO INDICATE BORDERLINE SOIL CLASSIFICATIONS

Other Tests

AN	ANALYTICAL TEST (pH, Soluble Sulfate, and Resistivity)
C	CONSOLIDATION TEST
DS	DIRECT SHEAR TEST
MD	MOISTURE DENSITY CURVE

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LEGEND

Job Number: 8747.000

Date: April 2015

PLATE

A-9

APPENDIX B

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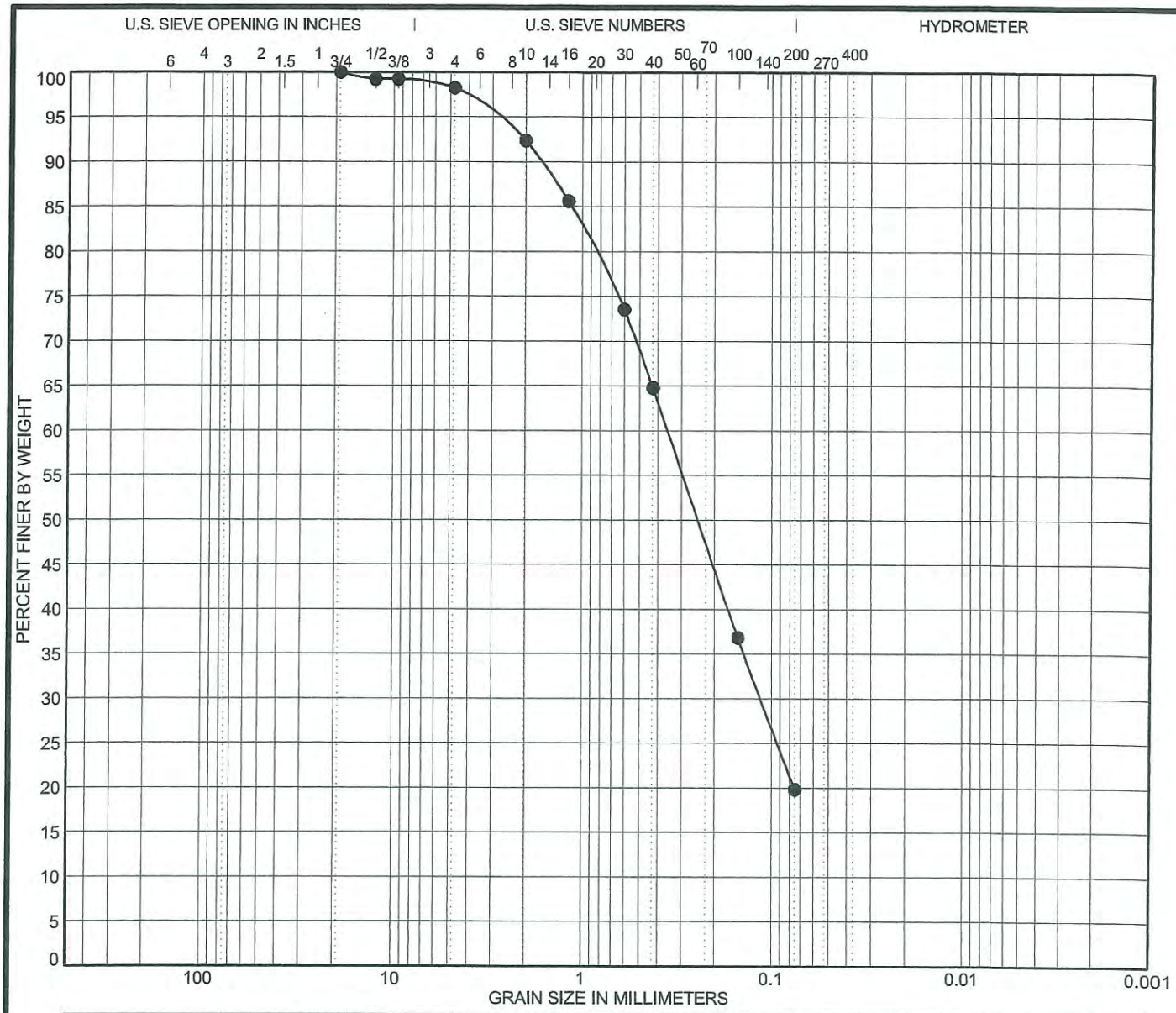

COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification	Date: 4-1-2015					
● **TP-3**	Classification	LL	PL	PI	Cc	Cu
Depth: 0.5	Silty SAND (SM)	NP	NP	NP		
Sample Location	Test Pit 3 from 0.5' - 1.5'					
USCS	SM					
AASHTO						

Specimen Identification								
● **TP-3**	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
Depth: 0.5	19	0.355	0.114		1.8	78.4	19.8	

Natural Moisture	4.4 %		**S.E.**		**Absorption %**		
R-Value	71		**Durability Index**		**Soundness**		
Perctage of Wear (500 rev)	%		**Specific Gravity**		**Direct Shear**		

LUMOS GRAIN SIZE 8747.000 HILLVIEW.GPJ US LAB.GDT 4/1/15

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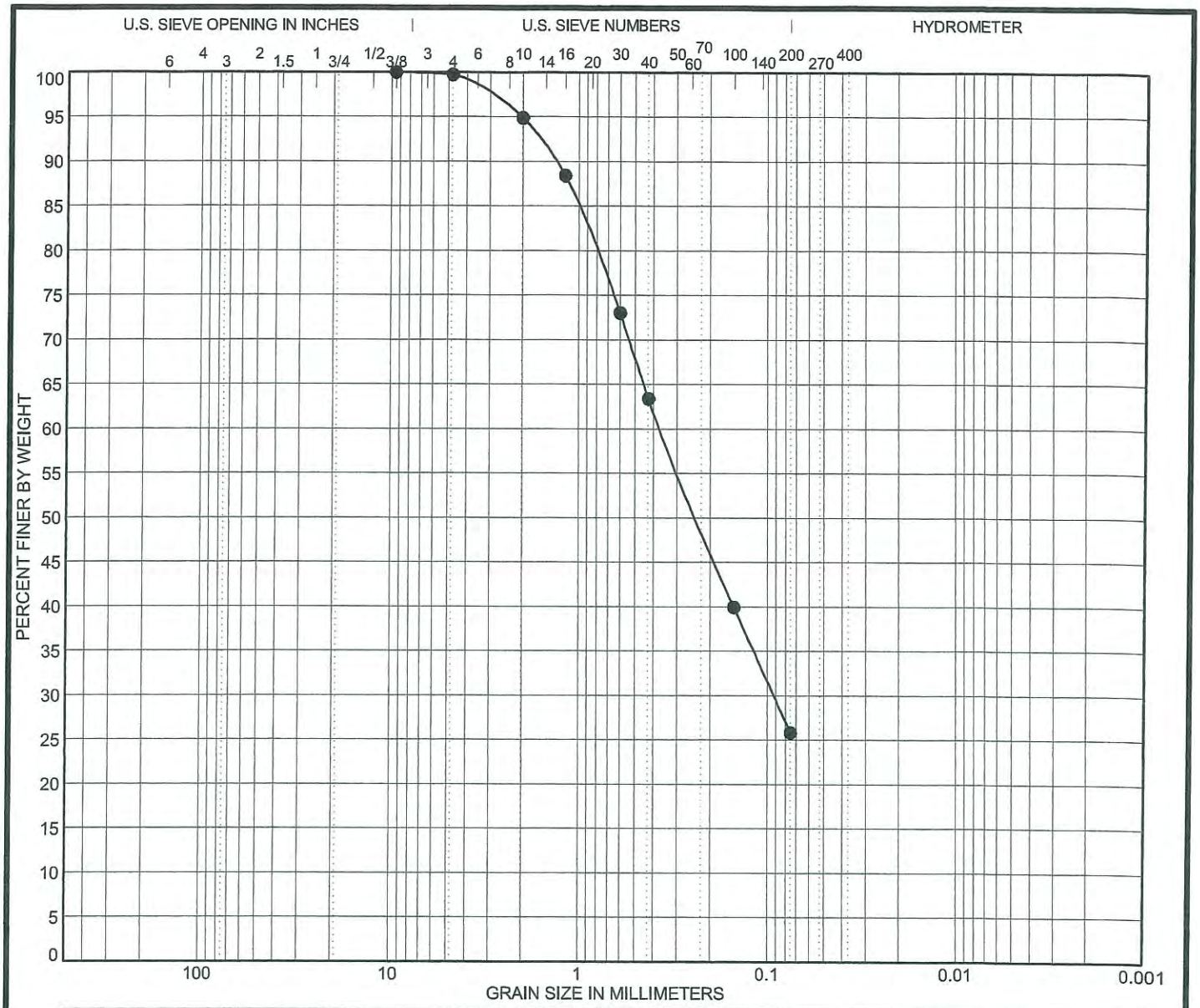
GRAIN SIZE DISTRIBUTION

Job Number: 8747.000

Date: April 2015

PLATE

B-1.1



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

	Specimen Identification	Date: 3-31-2015						
●	**TP-5**	Classification	LL	PL	PI	Cc	Cu	
	Depth: 3.5	Silty SAND (SM)	NP	NP	NP			
	Sample Location	Comb. Sample from TP-5 and 6 from 3.5'-4.5'						
	USCS	SM						
	AASHTO							

	Specimen Identification								
●	**TP-5**	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
	Depth: 3.5	9.5	0.365	0.092		0.3	73.9	25.8	
	Natural Moisture	1.9 %		**S.E.**		**Absorption %**			
	R-Value			**Durability Index**		**Soundness**			
	Perctage of Wear (500 rev)	%		**Specific Gravity**		**Direct Shear**	34.6		

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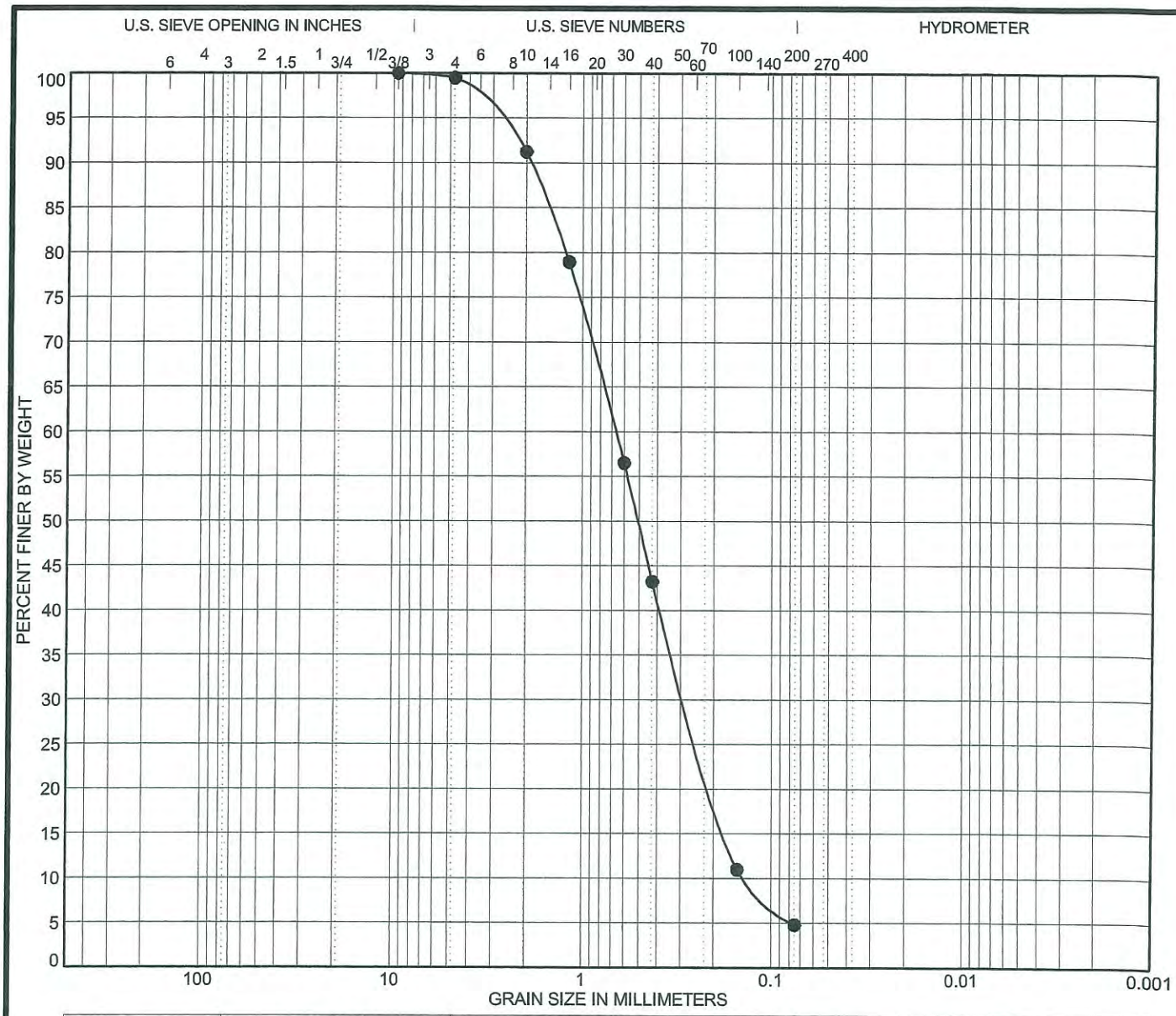
Job Number: 8747.000

Date: April 2015

PLATE

B-1.2

LUMOS GRAIN SIZE 8747.000 HILLVIEW.GPJ US LAB.GDT 4/1/15



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification	Date: 3-31-2015					
● TP-7	Classification	LL	PL	PI	Cc	Cu
Depth: 11.5	Poorly Graded SAND (SP)	NP	NP	NP	0.9	5.0
Sample Location	Test Pit 7 from 11.5' - 12.0'					
USCS	SP					
AASHTO						

Specimen Identification								
● TP-7	D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
Depth: 11.5	9.5	0.666	0.277	0.134	0.5	94.7	4.8	

Natural Moisture	3.9 %		**S.E.**		**Absorption %**		
R-Value			**Durability Index**		**Soundness**		
Perctage of Wear (500 rev)	%		**Specific Gravity**		**Direct Shear**		

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GRAIN SIZE DISTRIBUTION

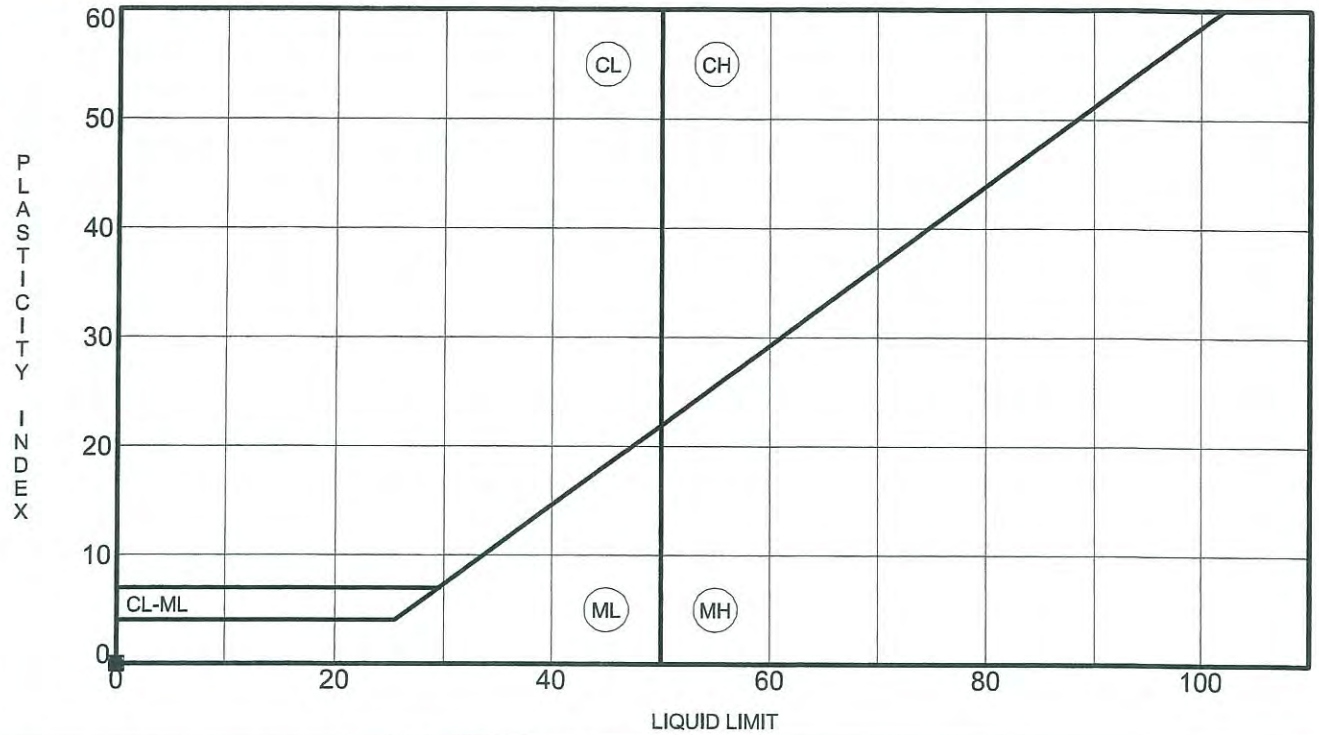
Job Number: 8747.000

Date: April 2015

PLATE

B-1.3

LUMOS GRAIN SIZE 8747.000 HILLVIEW.GPJ US LAB.GDT 4/1/15



	Specimen Identification		LL	PL	PI	Fines	Classification
●	TP-3	0.5	NP	NP	NP	20	Silty SAND (SM)
⊠	TP-5	3.5	NP	NP	NP	26	Silty SAND (SM)
▲	TP-7	11.5	NP	NP	NP	5	Poorly Graded SAND (SP)

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ATTERBERG LIMITS' RESULTS

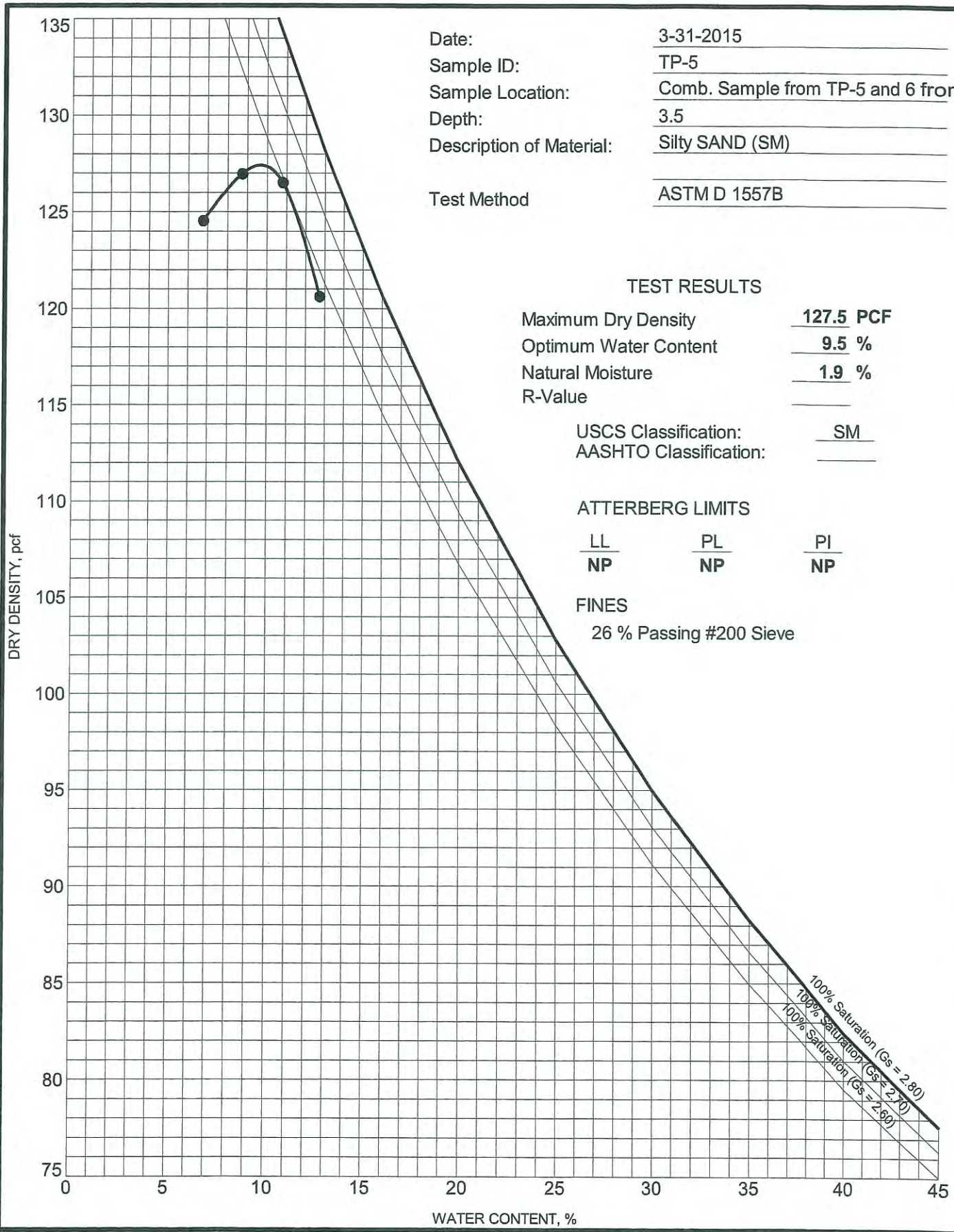
Job Number: 8747.000

Date: April 2015

PLATE

B-2

LUMOS ATTERBERG LIMITS 8747.000 HILLVIEW.GPJ US LAB.GDT 4/1/15



Date:	3-31-2015
Sample ID:	TP-5
Sample Location:	Comb. Sample from TP-5 and 6 from 3.5
Depth:	3.5
Description of Material:	Silty SAND (SM)
Test Method	ASTM D 1557B

TEST RESULTS

Maximum Dry Density	**127.5**	**PCF**
Optimum Water Content	**9.5**	**%**
Natural Moisture	**1.9**	**%**
R-Value		

USCS Classification: SM
AASHTO Classification:

ATTERBERG LIMITS

LL	PL	PI
NP	**NP**	**NP**

FINES

26 % Passing #200 Sieve

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(775) 883-7077
Fax:

LUMOS & ASSOCIATES

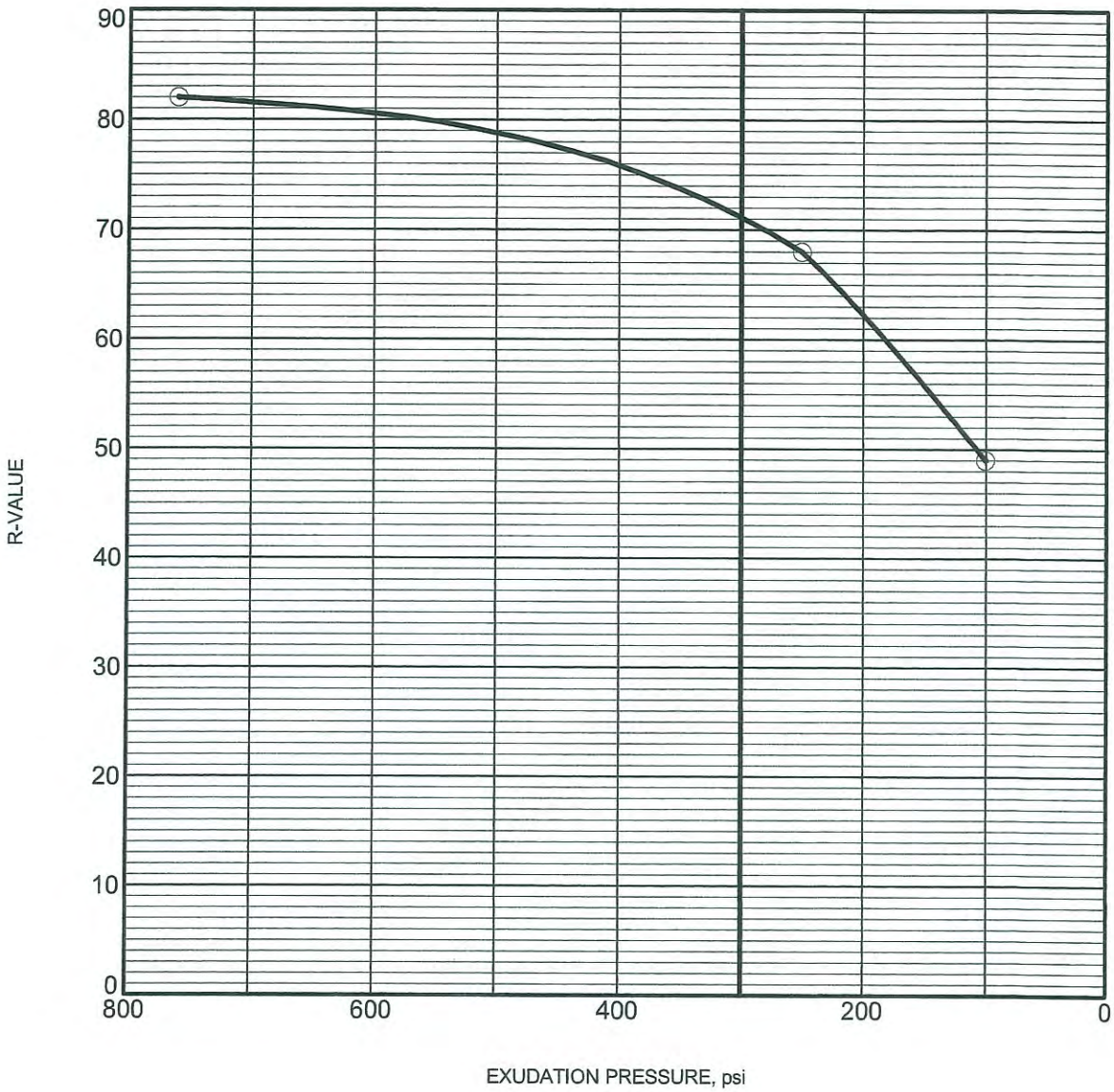
Hillview Geotechnical Report

MOISTURE-DENSITY CURVE

Job Number: 8747.000 Date: April 2015

PLATE

B-3



Test Data

Specimen No.	Water Content (%)	Dry Density (pcf)	Expansion (psf)	Exudation (psi)	Test R-Value*
1	**7.9**	**128.0**	**0.0**	**760.0**	**82.0**
2	**9.5**	**127.6**	**0.0**	**250.0**	**68.0**
3	**11.4**	**123.3**	**0.0**	**100.0**	**49.0**

* Reported values have been corrected for sample height, where required.

Test Result

Specimen Identification		Classification	R-Value
TP-3	**0.5**	**Silty SAND (SM)**	**71**

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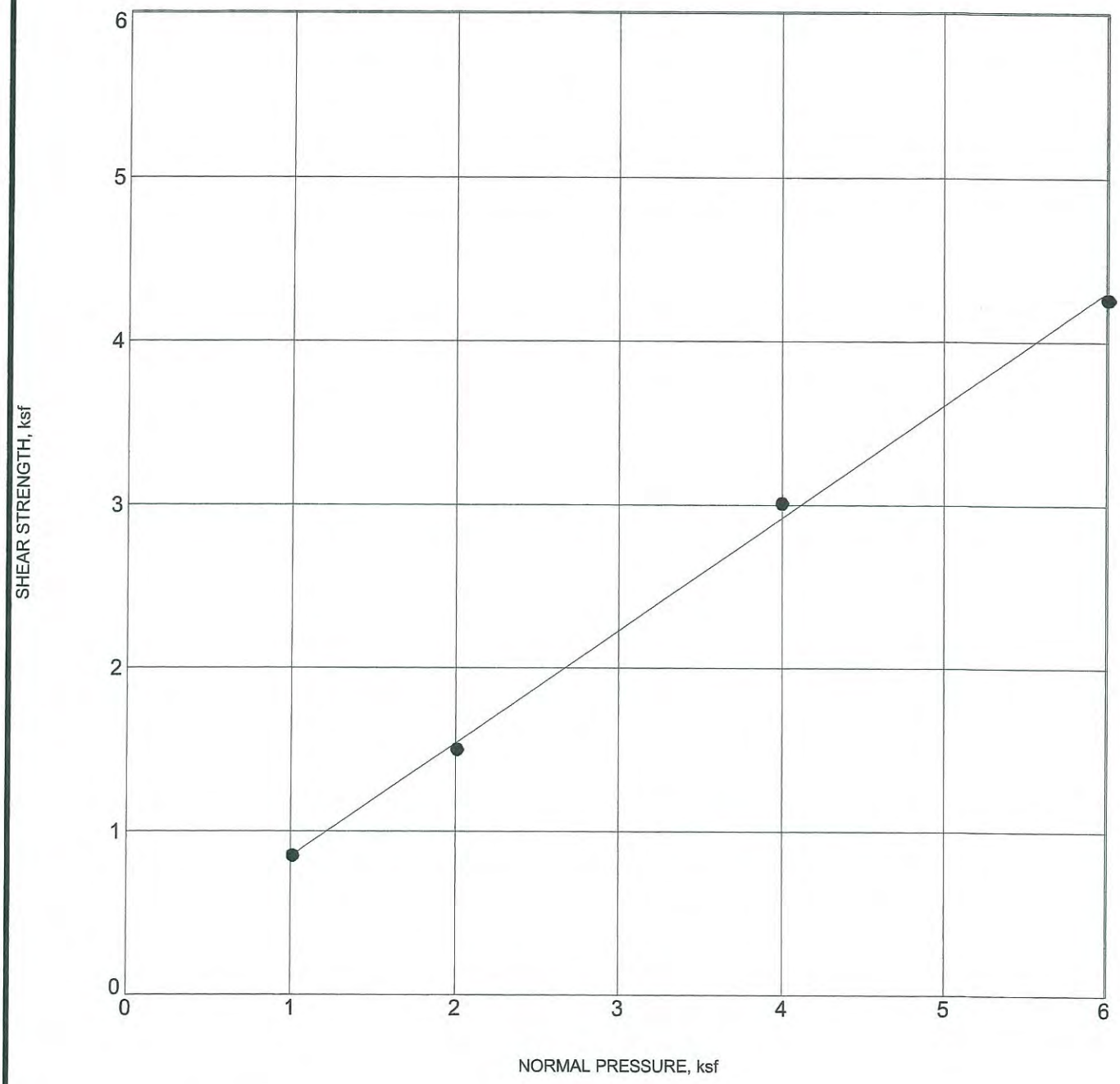
RESISTANCE VALUE TEST

Job Number: 8747.000

Date: April 2015

PLATE

B-4



Specimen Identification		Classification	γ_d	MC%	c	ϕ
● TP-5	3.5	**Silty SAND (SM)**	**128**	**10**	**0.15**	**34.6**

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DIRECT SHEAR TEST

Job Number: 8747.000

Date: April 2015

PLATE

B-5

SilverState Analytical Laboratories

LABORATORY REPORT

DATE: March 31, 2015

LABORATORY NO: R15-0142

CLIENT: Lumos and Associates
800 E. College Pkwy
Carson City, NV 89706

PAGE: 1 of 1

CLIENT PROJECT: 8747.000

PO# 8747.000/MTB

Sampled By: Client
Date Sampled: ---
Time Sampled: ---

Submitted By: Client
Date Received: 03/30/15
Time Received: Overnight

Report Attention:

Sample ID: TP-5 3.5'-4.5'

Test	Result	Unit	MRL	Method	Date	Analyst
Sodium	0.01	%	0.01	ASTM D2791A	03/31/15	LB
Sulfate	0.01	%	0.01	SM4500F	03/31/15	LB
Sodium Sulfate	0.01	%	0.01	Calculation	03/31/15	LB
Chloride	16.83	mg/kg	10	SM4500ClD	03/31/15	LB
pH	7.60	S.U.	---	EPA9045D	03/30/15	LB
Resistivity	9,809	Ω•cm	---	AASHTOT288	03/30/15	LB

EPA Flags: None
Note: Soil Analysis was completed at SSAL-Reno (Reno, NV).
Please direct any questions to the Reno office at 775-825-1127

Note: The results for each constituent denote the percentage (%) for that particular element which is soluble in a 1:5 (soil to water) extraction ratio and corrected for dilution

REVIEWED BY: signing for
John Sloan
Laboratory Director
EPA: NV00930 (SSAL-Las Vegas)
EPA: NV00931 (SSAL-Reno)

3638 East Sunset Road, Suite 100 • Las Vegas, NV 89120 • Tel: 702-873-4478 Fax: 702-873-7967
4587 Longley Lane, No. 2 • Reno, NV 89502 • Tel: 775-825-1127 Fax: 775-825-1167
www.ssalabs.com • www.envirotechonline.com

APPENDIX C

LUMOS
& ASSOCIATES

Job # 8747.000
Client: Divinni NV, LLC
Description: Pavement Calculations
By: B. Sexton

R-Value for structural fill specification = 45
R-Value for Gravel (Type II, Class B) = 70

T.I. = 5.5
G_f = 2.32
GE = 0.0032(TI)(100-R)
t_{layer} = GE/G_f

GE_{AC}= 0.0032(5.5)(100-70) = 0.53′
t_{AC}= .53/(2.32)*(12″) = 2.7″ => **<u>use 3″ asphalt</u>**
$t_{AC(actual)}$= (3)(2.32)/12″ = .58′

GE_{AB}= 0.0032(5)(100-45) = 0.97′
t_{AB}= (0.97-.58)(12″)/1.1 = 4.3″ => **<u>use 6″ aggregate base</u>**

Therefore, use 3″ of Asphalt Concrete (AC) underlain by a minimum of 6″ of Aggregate Base.

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Hillview Geotechnical Report

PAVEMENT DESIGN

Job Number: 8747.000 Date: April 2015

PLATE C-1

APPENDIX D

LUMOS
& ASSOCIATES

USGS Design Maps Summary Report

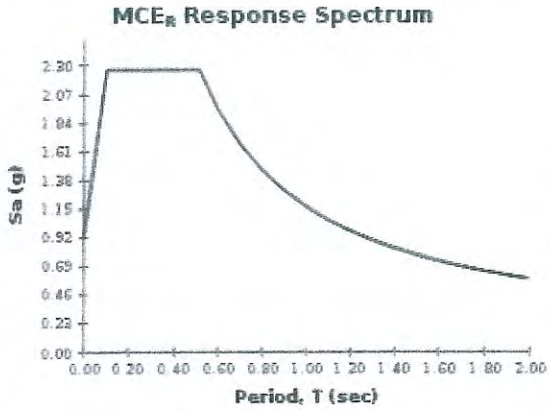
User-Specified Input

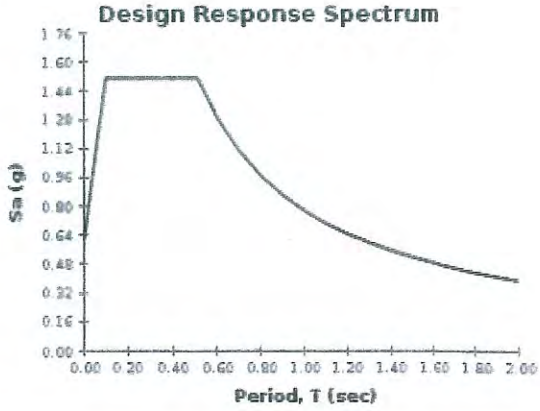
Report Title	Hillview Wed April 1, 2015 20:47:37 UTC
Building Code Reference Document	2012 International Building Code (which utilizes USGS hazard data available in 2008)
Site Coordinates	39.1267°N, 119.7505°W
Site Soil Classification	Site Class D – "Stiff Soil"
Risk Category	I/II/III

USGS-Provided Output

S_S =	2.265 g	S_{MS} =	2.265 g	S_{DS} =	1.510 g
S_1 =	0.777 g	S_{M1} =	1.165 g	S_{D1} =	0.777 g

For information on how the SS and S1 values above have been calculated from probabilistic (risk-targeted) and deterministic ground motions in the direction of maximum horizontal response, please return to the application and select the "2009 NEHRP" building code reference document.





http://ehp3-earthquake.wr.usgs.gov/designmaps/us/summary.php?template=minimal&latitu... 4/1/2015

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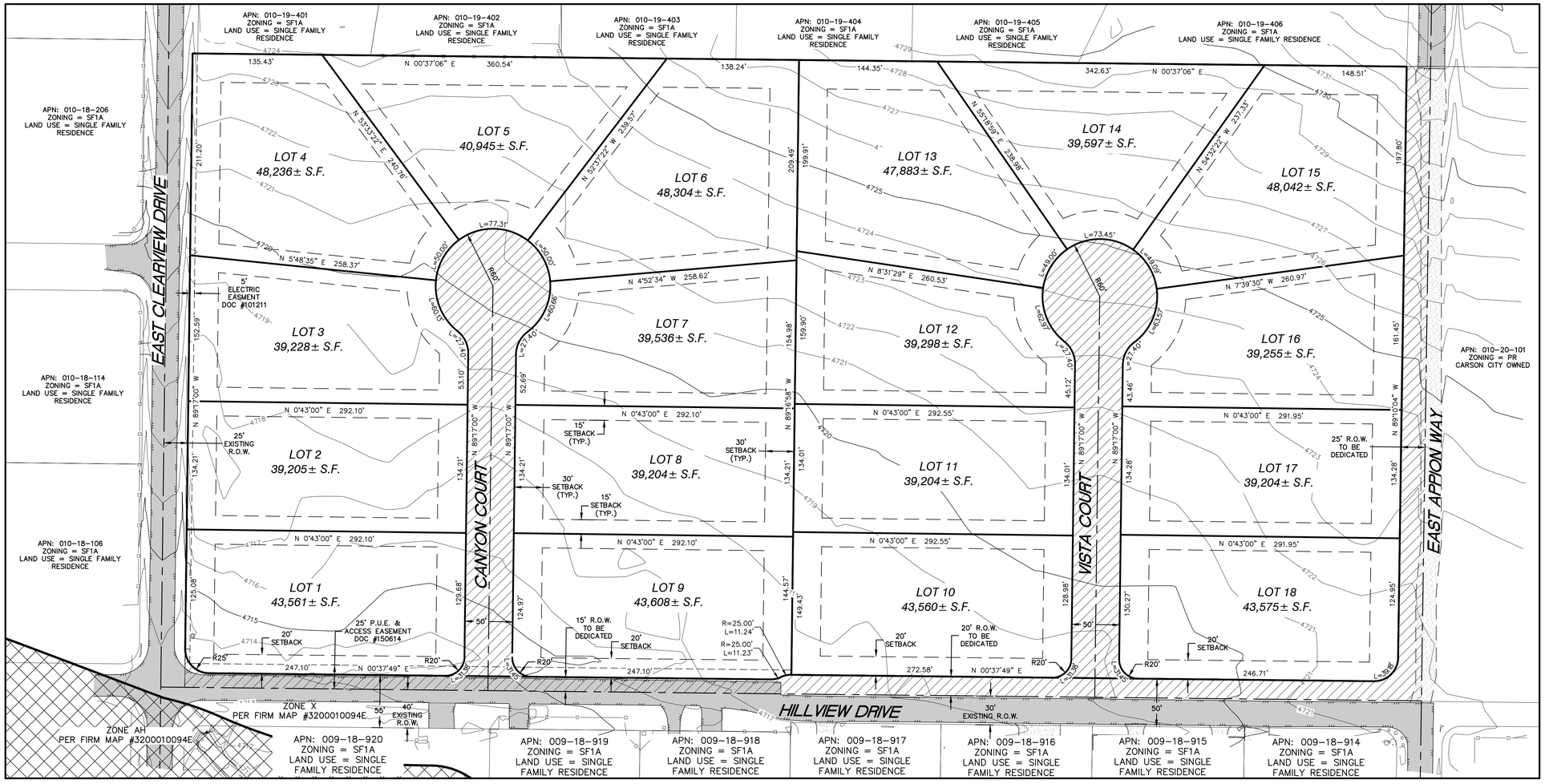
Hillview Geotechnical Report

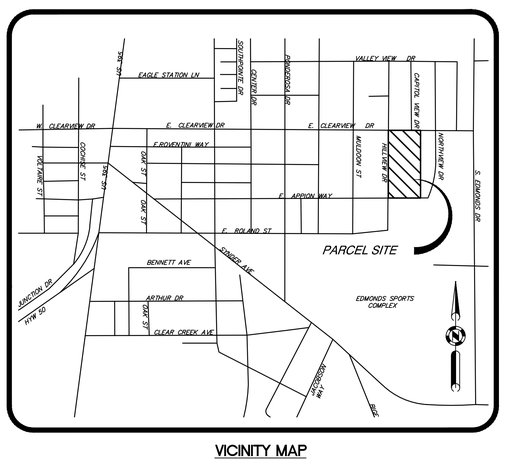
DESIGN RESPONSE SPECTRUM

Job Number: 8747.000 Date: April 2015

PLATE D-1

LUMOS DESIGN RESPONSE SPECTRUM 8747.000 HILLVIEW.GPJ US LAB.GDT 4/1/15





VICINITY MAP

NOT TO SCALE

AREA

PARCEL 1	– 43,561± S.F.
PARCEL 2	– 39,205± S.F.
PARCEL 3	– 39,228± S.F.
PARCEL 4	– 48,236± S.F.
PARCEL 5	– 40,945± S.F.
PARCEL 6	– 48,304± S.F.
PARCEL 7	– 39,536± S.F.
PARCEL 8	– 39,204± S.F.
PARCEL 9	– 43,608± S.F.
PARCEL 10	– 43,560± S.F.
PARCEL 11	– 39,204± S.F.
PARCEL 12	– 39,298± S.F.
PARCEL 13	– 47,883± S.F.
PARCEL 14	– 39,597± S.F.
PARCEL 15	– 48,042± S.F.
PARCEL 16	– 39,255± S.F.
PARCEL 17	– 39,204± S.F.
PARCEL 18	– 43,575± S.F.
RIGHT OF WAY DEDICATION	– 96,831± S.F.

TOTAL OVERALL AREA = 19.70± ACRES (NET/GROSS)

BASIS OF BEARINGS

THE BASIS OF BEARING FOR THIS SURVEY IS BASED ON THE NEVADA COORDINATE SYSTEM OF 1983, WEST ZONE, NAD 83/94. DISTANCES SHOWN ARE GROUND DISTANCES USING A PROJECT COMBINED GRID TO GROUND SCALE FACTOR OF 1.000200.

BASIS OF ELEVATIONS

DATUM: NAVD 88

PROJECT BENCHMARK =
CARSON CITY CONTROL POINT CC038 HAVING AN ELEVATION OF 4712.84'.

SITE INFORMATION:

A.P.N. 010-194-07
HILLVIEW AVE
CARSON CITY, NEVADA

A.P.N. 010-194-08
HILLVIEW AVE
CARSON CITY, NEVADA

DEVELOPER

DIVINNI NV, LLC
1320 HWY 395 N.
GARDNERVILLE, NV 89410

ZONING AND LAND USE:

EXISTING AND PROPOSED ZONING AND MASTER PLAN USE:

ZONING – (SF1A) SINGLE FAMILY ONE ACRE
LAND USE – SINGLE FAMILY RESIDENTIAL

LEGAL DESCRIPTION

A.P.N. 010-194-07

ALL THAT CERTAIN REAL PROPERTY SITUATE IN THE COUNTY OF CARSON CITY, STATE OF NEVADA, DESCRIBED AS FOLLOWS:

SW 1/4 OR THE NW 1/4 OF THE NW 1/4, SECTION 33, TOWNSHIP 15 NORTH, RANGE 20 EAST M.D.B. & M.

A.P.N. 010-194-08

ALL THAT CERTAIN REAL PROPERTY SITUATE IN THE COUNTY OF CARSON CITY, STATE OF NEVADA, DESCRIBED AS FOLLOWS:

NW 1/4 OR THE NW 1/4 OF THE NW 1/4, SECTION 33, TOWNSHIP 15 NORTH, RANGE 20 EAST M.D.B. & M.

GRAPHIC SCALE
SCALE IN FEET
60 0 60 120

LEGEND:

P.U.E.	PUBLIC UTILITY EASEMENT
(M)	MEASURED DATA
(R1)	PER REFERENCED DATA
	RIGHT OF WAY (R.O.W.) TO BE DEDICATED AS PUBLIC R.O.W. PER THIS MAP, 2.22± ACRES
	FEMA ZONE AH LIMITS *SUBJECT PROPERTY LIES ENTIRELY WITHIN EXISTING FEMA ZONE X
	EXISTING AC PAVING

LUMOS & ASSOCIATES
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CARSON CITY, NEVADA 89706
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FAX (775) 883-7114

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MATERIALS TESTING

DIVINNI NV, LLC

TENTATIVE SUBDIVISION MAP
CANYON VISTA
A.P.N.'S 010-194-07 & 08

CARSON CITY NEVADA

REV	DATE	DESCRIPTION	BY

DATE:	APRIL 2015
DRAWN BY:	KLN
DESIGNED BY:	GP
CHECKED BY:	TR
JOB NO.:	8747.000

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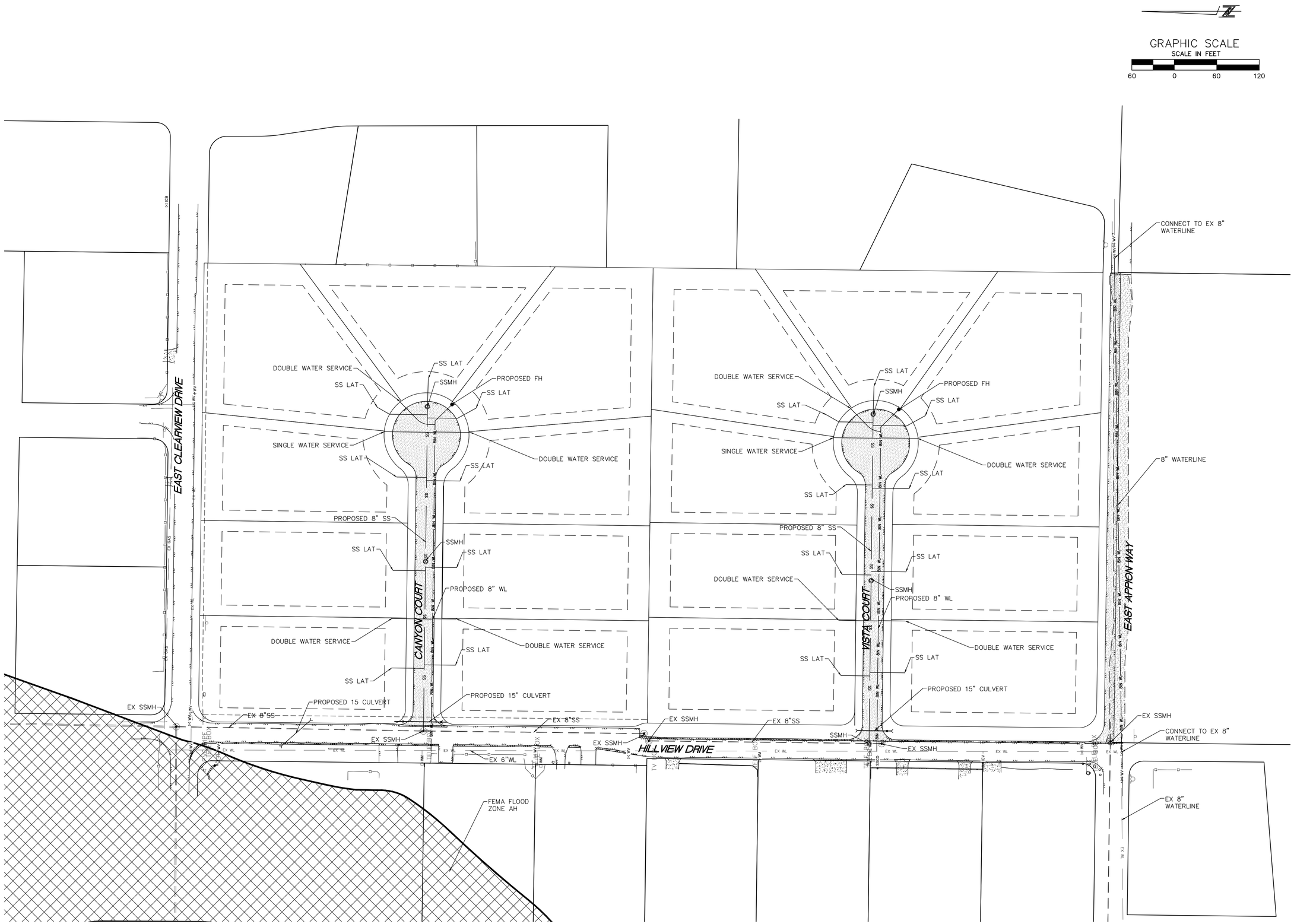

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TENTATIVE SITE PLAN
CANYON VISTA
A.P.N.'S 010-194-07 & 08

CARSON CITY NEVADA

REV	DATE	DESCRIPTION	BY

2 of 3

DATE:	APRIL 2015
DRAWN BY:	KLN
DESIGNED BY:	RB
CHECKED BY:	TR
JOB NO.:	8747.000

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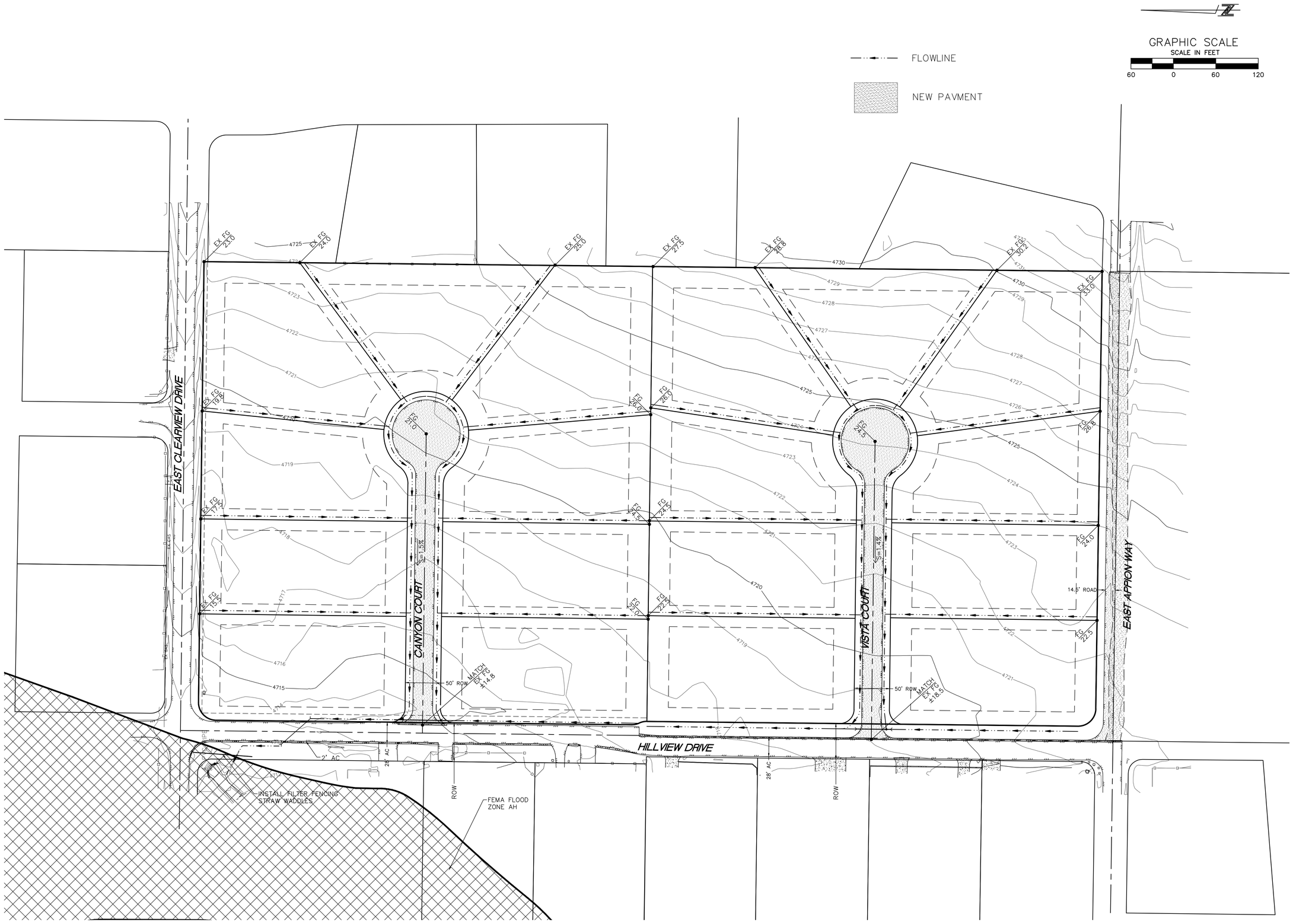

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TENTATIVE GRADING/EROSION PLAN
CANYON VISTA
A.P.N.'S 010-194-07 & 08

CARSON CITY NEVADA

REV	DATE	DESCRIPTION	BY

3 of 3

DATE:	APRIL 2015
DRAWN BY:	KLN
DESIGNED BY:	RB
CHECKED BY:	TR
JOB NO.:	8747.000

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