



## **BRIDGE ST BRIDGE REPLACEMENT TEMPORARY SHORING CALCULATIONS**

ODOT DISTRICT 11

FEBRUARY 26, 2025



Engineers, Surveyors, Planners, Scientists  
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2023-0339

Temporary Shoring 1 at Rear Abutment

Soil Properties Based off of Boring B-002-0-24

Top of Wall Elevation = 943.33 ft  
 Bottom of Wall Elevation = 931.28 ft  
 Water Table Elevation = 935.2 ft  
 H (design) = 9.64 ft  
 Su = 0 psf (Conservative)  
 Gamma = 125 pcf  
 Backslope Angle = 0  
 Piling Spacing S = 0 ft  
 ka1 = 0.42173  
 ka2 = 0.42173  
 Water Density = 62.4 pcf  
 Surcharge Load Equivalent Height = 2

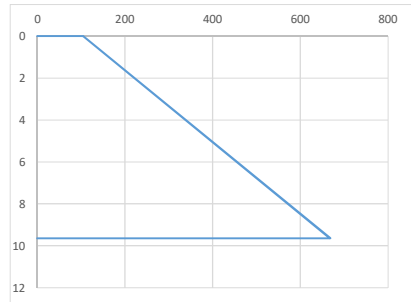
AASHTO LRFD Load Factors

Reference Tbl. 3.4.1-1 & 3.4.1-2

Limit State	EH	LL	WA
Service I	1.00	1.00	1.00
Strength I	1.50	1.75	1.00

Load Pressure Calculations

Limit State	Depth Below Head (ft)	EH	LL	WA
Top of Wall	0.00	0.00	105.43	0.00
Water Table	8.13	428.58	105.43	0.00
Bottom of Wall	9.64	468.45	105.43	94.22



PYWALL Unifromly Distributed Load (LL Surcharge) Inputs

Location	Service I Min (lbs/in)	Strength I Max (lbs/in)
Top of Wall	250.00	291.67
Bottom of Wall	250.00	291.67

Note: Pywall uses a active earth modification factor, for service case it is 1 but for strength case it is 1.5 and it multiplies surcharge load by 1.5 by default so to get around this in strength case surcharge load needs to be multiplied by 1.75/1.5.

SOIL LAYER SETUP FOR PYWALL

No	Type	Depth at Top of the Layer	Depth at Bottom of Layer	Friction angle $\Phi$	Unit Weight	Cohesive Strength	E50	K (py) (pci)	Pressure coefficient
1	Stiff Clay W/O Free	-0.37	3.13	24.00	124.00	750	0.015	80	0.421730222
2	Stiff Clay W/O Free	3.13	8.13	-	124.00	750	0.015	80	0.421730222
3	Stiff Clay W/O Free	8.13	9.64	-	122.00	250	0.030	15	0.421730222
4	Stiff Clay W/O Free	9.64	11.13	-	122.00	250.00	0.030	15.00	0.0001
5	Sand (Reese)	11.13	14.13	28.00	110.00	-	-	20	0.0001
6	Sand (Reese)	14.13	18.63	28.00	110.00	-	-	20	0.0001
7	Stiff Clay With Free Water	18.63	23.13	-	124.00	750	0.015	80	0.0001
8	Stiff Clay With Free Water	23.13	33.13	-	126.00	1500	0.010	350	0.001
9	Stiff Clay With Free Water	33.13	49.63	-	131.00	4500	0.004	1500	0.001

all load effects are zero below e

PYWALL results

SHEET PILE

SECTION = PZ 27  
 Depth = 36 ft  
 Service Level Deflection = 1.924 in  
 Strength Level Deflection = 3.990 in  
 Max Strength I Moment Above Excavation Line = 39.31667 kip-ft  
 Max Strength I Moment Below Excavation Line = 74.98333 kip-ft  
 Max Strength I Shear = 8.328 kips  
 < OK 2.314 in 83.1604426  
 < OK 4.627 in  
 < OK 113.25 k-ft  
 < OK 113.25 k-ft  
 < OK 87 kips (LRFD Section 6.10.9.2)

Temporary Shoring 2 at Southwest Wingwall

Soil Properties Based off of Boring B-002-0-24

Top of Wall Elevation = 942 ft  
Bottom of Wall Elevation = 931.28 ft 6.8  
Water Table Elevation = 935.2  
H (design) = 10.72 ft  
Su = 0 psf (Conservative)  
Gamma = 125 pcf  
Backslope Angle = 0  
Piling Spacing S = 0 ft  
ka1 = 0.42173  
ka2 = 0.42173  
Water Density = 62.4 pcf  
Surcharge Load Equivalent Height = 0

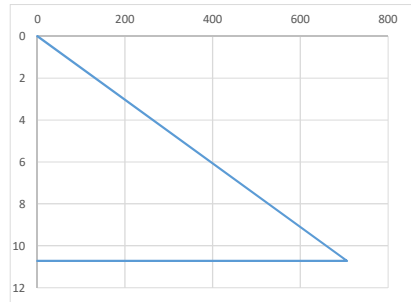
AASHTO LRFD Load Factors

Reference Tbl. 3.4.1-1 & 3.4.1-2

Limit State	EH	LL	WA
Service I	1.00	1.00	1.00
Strength I	1.50	1.75	1.00

Load Pressure Calculations

Limit State	Depth Below Head (ft)	EH	LL	WA
Top of Wall	0.00	0.00	0.00	0.00 psf
Water Table	6.80	358.47	0.00	0.00 psf
Bottom of Wall	10.72	461.96	0.00	244.61 psf



PYWALL Uniformly Distributed Load (LL Surcharge) Inputs

Location	Service I Min (lbs/in)	Strength I Max (lbs/in)
Top of Wall	0.00	0.00
Bottom of Wall	0.00	0.00

Note: Pywall uses a active earth modification factor, for service case it is 1 but for strength case it is 1.5 and it multiplies surcharge load by 1.5 by default so to get around this in strength case surcharge load needs to be multiplied by 1.75/1.5.

SOIL LAYER SETUP FOR PYWALL

No	Type	Depth at Top of the Layer	Depth at Bottom of Layer	Friction angle $\phi$	Unit Weight	Cohesive Strength	E50	K (py) (pci)	Pressure coefficient
1	Stiff Clay W/O Free	-1.70	1.80	24.00	124.00	750	0.015	80	0.421730222 0.421730222
2	Stiff Clay W/O Free	1.80	6.80	-	124.00	750	0.015	80	0.421730222 0.421730222
3	Stiff Clay W/O Free	6.80	9.80	-	122.00	250	0.030	15	0.421730222 0.421730222
4	Sand (Reese)	9.80	10.72	28.00	110.00	-	-	20	0.421730222 0.421730222
5	Sand (Reese)	10.72	12.80	28.00	110.00	-	-	20	0.0001 0.0001
6	Sand (Reese)	12.80	17.30	28.00	110.00	-	-	20.00	0.0001 0.0001
7	Stiff Clay With Free Water	17.30	21.80	-	124.00	750.00	0.015	80.000	0.0001 0.0001
8	Stiff Clay With Free Water	21.80	31.80	-	126.00	1500.00	0.010	350.000	0.0001 0.0001
9	Stiff Clay With Free Water	31.80	48.30	-	131.00	4500.00	0.004	1500.000	0.0001 0.0001
10									

all load effects are zero below e

PYWALL results

SHEET PILE

SECTION = PZ 27  
Depth = 36 ft  
Service Level Deflection = 2.151 in  
Strength Level Deflection = 5.033 in

< OK 2.5728 "  
< OK 5.1456 "

Max Strength I Moment Above Excavation Line = 25.53333 kip-ft  
Max Strength I Moment Below Excavation Line = 75.5 kip-ft  
Max Strength I Shear = 9.620 kips

< OK 113.25 k-ft  
< OK 113.25 k-ft  
< OK 110.6714 kips (LRFD Section 6.10.9.2)

Temporary Shoring 3 at FWD Abutment

Soil Properties Based off of Boring B-001-O-24

Top of Wall Elevation = 939.86 ft  
Bottom of Wall Elevation = 928 ft 16.06  
Water Table Elevation = 923.8 930.372  
H (design) = 9.488 ft  
Su = psf (Conservative)  
Gamma = 125 pcf  
Backslope Angle = 0  
Piling Spacing S = 0 ft  
ka1 = 0.42173  
ka2 = 0.42173  
Water Density = 62.4 pcf  
Surcharge Load Equivalent Height = 2

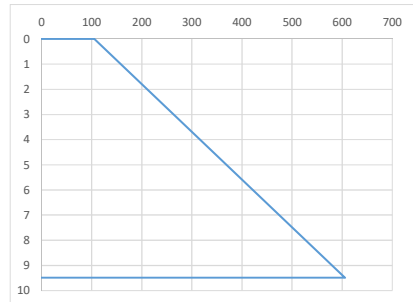
AASHTO LRFD Load Factors

Reference Tbl. 3.4.1-1 & 3.4.1-2

Limit State	EH	LL	WA
Service I	1.00	1.00	1.00
Strength I	1.50	1.75	1.00

Load Pressure Calculations

Limit State	Depth Below Head (ft)	EH	LL	WA
Top of Wall	0.00	0.00	105.43	0.00
Water Table	16.06	846.62	105.43	0.00
Bottom of Wall	9.49	500.17	105.43	0.00



PYWALL Unifromly Distributed Load (LL Surcharge) Inputs

Location	Service I Min (lbs/in)	Strength I Max (lbs/in)
Top of Wall	250.00	291.67
Bottom of Wall	250.00	291.67

Note: Pywall uses a active earth modification factor, for service case it is 1 but for strength case it is 1.5 and it multiplies surcharge load by 1.5 by default so to get around this in strength case surcharge load needs to be multiplied by 1.75/1.5.

SOIL LAYER SETUP FOR PYWALL

No	Type	Depth at Top of the Layer	Depth at Bottom of Layer	Friction angle $\phi$	Unit Weight	Cohesive Strength	K (py) (pcf)	E50	Pressure coefficient
1	Stiff Clay W/O Free	0.06	6.06	24.00	124.00	750	80	0.015	0.421730222
2	Sand (Reese)	6.06	9.49	28.00	110.00	-	25	-	0.421730222
3	Sand (Reese)	9.49	24.38	28.00	110.00	-	25	-	0.0001
5	Stiff Clay With Free Water	24.38	33.56	-	126.00	1500	350	0.010	0.0001
7	Stiff Clay With Free Water	33.56	38.56	-	131.00	4500	1500	0.004	0.0001

all load effects are zero below e

PYWALL results

SHEET PILE

SECTION = PZ 27  
Depth = 32 ft  
Service Level Deflection = 2.009 in  
Strength Level Deflection = 3.720 in  
Max Strength I Moment Above Excavation Line = 30.3 kip-ft  
Max Strength I Moment Below Excavation Line = 65.875 kip-ft  
Max Strength I Shear = 9.817 kips  
< OK 2.27712 in  
< OK 4.55424 in  
< OK 113.25 k-ft  
< OK 113.25 k-ft  
< OK 87 kips (LRFD Section 6.10.9.2)

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PYWALL for Windows, Version 2022.7.5

Serial Number : 447597562

A Program for the Analysis of  
Flexible Retaining Walls  
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EMHT Inc.  
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Path to file locations : J:\20230339\ODOT\07\_D11 Bridge  
St\_Bowerston\120494\400-Engineering\Structures\SFN\_3431790\EngData\17\_Temp  
Shoring\PYWALL - Updated 02-19-2025 - Check 1\  
Name of input data file : Temp Shoring\_RA.py7d  
Name of output file : Temp Shoring\_RA.py7o  
Name of plot output file : Temp Shoring\_RA.py7p

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Time and Date of Analysis  
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Date: February 21, 2025 Time: 09:13:41

New Wall

\*\*\*\*\*  
\* PROGRAM CONTROL PARAMETERS \*  
\*\*\*\*\*

NO OF POINTS FOR SPECIFIED DEFLECTIONS AND SLOPES	= 0
NO OF WALL SECTIONS	= 1
NO OF CROSS SECTIONS	= 1
GENERATE EARTH PRESSURE INTERNALLY	= 1
GENERATE SOIL RESISTANCE (P-Y) CURVES INTERNALLY	= 1
NO OF P-Y MODIFICATION FACTORS FOR GEN. P-Y CURVES	= 0
NO OF USER-SPECIFIED SOIL RESISTANCE (P-Y) CURVES	= 0
NO OF TIE BACKS	= 0
NO OF STRUTS/RAKERS	= 0

HEIGHT OF WALL	=	36.000 FT
NUMBER OF INCREMENTS	=	100
INCREMENT LENGTH	=	4.320 IN
MAXIMUM ALLOWABLE DEFLECTION	=	100.000 IN
DEFLECTION CLOSURE TOLERANCE	=	1.000E-05 IN
MAXIMUM NUMBER OF ITERATIONS	=	100

\* WALL SECTIONS \*

SECT	TOP FT	BOTTOM FT	SECTION
1	0.00000	36.0000	1

\* CROSS SECTIONS \*

CROSS SECTION : 1  
 SECTION NAME : PZ  
 TYPE : ELASTIC  
 CROSS SECTION TYPE : SHEET PILING  
 SOURCE : USS  
 SECTION NAME : 1  
 WIDTH : 18.0000 IN  
 DEPTH : 12.0000 IN  
 WEB THICKNESS : 0.37500 IN  
 YOUNG MODULUS : 2.90000E+07 LBS/IN\*\*2

\* CROSS SECTIONS PROPERTIES \*

ELASTIC SECTIONS

SECT	DIAM, IN	I, IN**4
1	18.0000	276.300

\*\*\*\*\*

\* STIFFNESS AND LOAD DATA \*

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EI - FLEXURAL RIGIDITY, Q - TRANSVERSE LOAD,  
 S - STIFFNESS OF TRANSVERSE RESISTANCE,  
 T - TORQUE, P - AXIAL LOAD,  
 R - STIFFNESS OF TORSIONAL RESISTANCE.

FROM	TO	CONTD	EI LBS-IN**2	Q LBS	S LBS/IN	T IN-LBS	R IN-LBS	P LBS
0	1		8.013E+09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
100	0		8.013E+09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

\*\*\*\*\*  
 \* WALL INFORMATION \*  
 \*\*\*\*\*

FREE HEIGHT OF WALL = 9.640E+00 FT  
 WIDTH FOR EARTH PRESSURE, WA = 1.800E+01 IN  
 WIDTH FOR SOIL RESISTANCE, WP = 1.800E+01 IN  
 DEPTH TO THE WATER TABLE AT BACKFILL = 8.430E+00 FT  
 DEPTH TO THE WATER TABLE AT EXCAVATION = 9.640E+00 FT  
 UNIT WEIGHT OF WATER = 3.600E-02 LBS/IN\*\*3  
 SLOPE OF THE BACKFILL (deg.) = 0.000E+00  
 SLOPE OF THE EXCAVATION GROUND (deg.) = 0.000E+00  
 MODIFICATION FOR ACTIVE EARTH PRESSURE = 1.500E+00

\*\*\*\*\*  
 \* SURCHARGE INFORMATION \*  
 \*\*\*\*\*

UNIFORM SURFACE PRESSURE = 2.025E+00 LBS/IN\*\*2

\*\*\*\*\*  
 \* SOIL INFORMATION \*  
 \*\*\*\*\*

LAYER NO.	TOTAL THICKNESS FT	COHESION/ STRENGTH PSI	TOTAL UNIT			
			PHI DEG	WEIGHT PCI	DRAINED T OR F	ZTOP FT
1	8.4	5.2	0.0	0.072	T	0.00
2	1.2	5.2	0.0	0.072	T	8.43
3	1.4	1.7	0.0	0.071	T	9.64
4	7.5	0.0	28.0	0.064	T	11.08
5	4.5	5.2	0.0	0.072	T	18.58
6	10.0	10.4	0.0	0.073	T	23.08
7	16.5	31.2	0.0	0.076	T	33.08

\*\*\*\*\*  
 \* EFFECTIVE OVERBURDEN STRESS \*  
 \*\*\*\*\*

DEPTH FT	STRESS LBS/IN**2
0.000E+00	2.025E+00
8.430E+00	9.285E+00
9.640E+00	9.804E+00
1.108E+01	1.040E+01
1.858E+01	1.289E+01
2.308E+01	1.482E+01
3.308E+01	1.925E+01

\*\*\*\*\*  
 \* ACTIVE AND PASSIVE EARTH PRESSURE COEFFICIENT \*  
 \*\*\*\*\*

LAYER NO.	ACTIVE EARTH COEFFICIENT	PASSIVE EARTH(*) COEFFICIENT	OPTIONAL EARTH(**) COEFFICIENT
1	1.000E+00	1.000E+00	4.217E-01
2	1.000E+00	1.000E+00	4.217E-01
3	1.000E+00	1.000E+00	1.000E-05
4	3.610E-01	2.770E+00	1.000E-06
5	1.000E+00	1.000E+00	1.000E-04
6	1.000E+00	1.000E+00	1.000E-04
7	1.000E+00	1.000E+00	1.000E-04

NOTES:

- (\*) PASSIVE EARTH COEFFICIENT IS PRINTED ONLY FOR REFERENCE,  
 IT IS NOT USED FOR ANALYSIS  
 (\*\*) OPTIONAL EARTH COEFFICIENT IS USED TO ESTIMATE ACTIVE PRESSURE  
 IF IT IS DIFFERENT THAN ZERO

\*\*\*\*\*  
 \* ACTIVE EARTH PRESSURE OF EACH LAYER \*  
 \*\*\*\*\*

LAYER NO	PA1 LBS/IN	Z1 FT	PA2 LBS/IN	Z2 FT	PA3 LBS/IN	Z3 FT	PA4 LBS/IN
1	129.62	4.21	232.27	5.62	0.00	-0.00	0.00
2	85.28	9.04	2.38	9.24	0.00	-0.00	0.00

\*\*\*\*\*  
 \* ACTIVE WATER PRESSURE OF EACH LAYER \*  
 \*\*\*\*\*



LAYER	PW1	Z1	PW2	Z2
NO	LBS/IN	FT	LBS/IN	FT
2	0.00	9.04	5.69	9.24

\* GENERATED TRIANGULAR-DISTRIBUTION EARTH PRESSURE

DEPTH FT	ACTIVE EARTH PRESSURE LBS/IN
-----	-----
0.00000E+00	2.30634E+01
5.00792E-01	2.79738E+01
1.00158E+00	3.28842E+01
1.50242E+00	3.77946E+01
2.00317E+00	4.27050E+01
2.50400E+00	4.76154E+01
3.00475E+00	5.25258E+01
3.50558E+00	5.74362E+01
4.00633E+00	6.23466E+01
4.50717E+00	6.72570E+01
5.00792E+00	7.21674E+01
5.50875E+00	7.70778E+01
6.00950E+00	8.19882E+01
6.51033E+00	8.68986E+01
7.01108E+00	9.18090E+01
7.51192E+00	9.67194E+01
8.01267E+00	1.01630E+02
8.51083E+00	1.07057E+02
8.99500E+00	1.15067E+02
9.47833E+00	1.23077E+02
9.97917E+00	1.41161E+01
1.04867E+01	1.41161E+01
1.09950E+01	1.41161E+01
1.14967E+01	1.41136E+01
1.19967E+01	1.41136E+01
1.24967E+01	1.41136E+01
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1.69967E+01	1.41136E+01
1.74967E+01	1.41136E+01
1.79967E+01	1.41136E+01
1.84967E+01	1.41136E+01
1.89967E+01	1.41399E+01

1.94967E+01	1.41399E+01
1.99967E+01	1.41399E+01
2.04967E+01	1.41399E+01
2.09967E+01	1.41399E+01
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3.09967E+01	1.41399E+01
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3.19967E+01	1.41399E+01
3.24967E+01	1.41399E+01
3.29967E+01	1.41399E+01
3.34967E+01	1.41399E+01
3.39967E+01	1.41399E+01
3.44967E+01	1.41399E+01
3.49967E+01	1.41399E+01
3.54967E+01	1.41399E+01
3.59967E+01	1.41399E+01

\*\*\*\*\*  
 \* SOIL LAYERS AND STRENGTH DATA \*  
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X AT THE SURFACE OF EXCAVATION SIDE = 9.64 FT

5 LAYER(S) OF SOIL

LAYER 1  
 THE SOIL IS A STIFF CLAY WITH FREE WATER

LAYER 2  
 THE SOIL IS A SAND

LAYER 3  
THE SOIL IS A STIFF CLAY WITH FREE WATER

LAYER 4  
THE SOIL IS A STIFF CLAY WITH FREE WATER

LAYER 5  
THE SOIL IS A STIFF CLAY WITH FREE WATER

DISTRIBUTION OF EFFECTIVE UNIT WEIGHT WITH DEPTH  
10 POINTS

X, FT	WEIGHT, LBS/IN**3
9.6400	3.4602E-02
11.0800	3.4602E-02
11.0800	2.7657E-02
18.5800	2.7657E-02
18.5800	3.5759E-02
23.0800	3.5759E-02
23.0800	3.6917E-02
33.0800	3.6917E-02
33.0800	3.9810E-02
49.5800	3.9810E-02

DISTRIBUTION OF STRENGTH PARAMETERS WITH DEPTH  
10 POINTS

X, FT	C, LBS/IN**2	PHI, DEGREE	E50	KPY, LBS/IN**3
9.64	1.7361E+00	0.000	3.0000E-02	1.5000E+01
11.08	1.7361E+00	0.000	3.0000E-02	1.5000E+01
11.08	0.0000E+00	28.000	0.0000E+00	2.0000E+01
18.58	0.0000E+00	28.000	0.0000E+00	2.0000E+01
18.58	5.2083E+00	0.000	1.5000E-02	8.0000E+01
23.08	5.2083E+00	0.000	1.5000E-02	8.0000E+01
23.08	1.0417E+01	0.000	1.0000E-02	3.5000E+02
33.08	1.0417E+01	0.000	1.0000E-02	3.5000E+02
33.08	3.1250E+01	0.000	4.0000E-03	1.5000E+03
36.72	3.1250E+01	0.000	4.0000E-03	1.5000E+03

P-Y CURVES DATA

AT THE EXCAVATION SIDE

KPY	DEPTH BELOW GS	DIAM	C	CAVG	GAMMA AVG	E50
	FT	IN	LBS/IN**2	LBS/IN**2	LBS/IN**3	
LBS/IN**3	0.01	18.000	1.74E+00	1.74E+00	3.46E-02	3.0000E-02
1.50000E+01						

Y	P
IN	LBS/IN
0.000	0.000
0.040	0.061
0.081	0.121
0.121	0.182
0.162	0.242
0.202	0.303
0.242	0.363
0.283	0.424
0.323	0.485
0.363	0.545
0.404	0.606
0.444	0.666
0.485	0.727
0.808	1.211
1.131	1.696
1.454	0.052
12.113	0.052

P-Multiplier = 1.000E+00 Y-Multiplier = 1.000E+00

AT THE BACKFILL SIDE

KPY	DEPTH BELOW GS	DIAM	C	CAVG	GAMMA AVG	E50
	FT	IN	LBS/IN**2	LBS/IN**2	LBS/IN**3	
LBS/IN**3	9.65	18.000	1.74E+00	1.74E+00	6.72E-02	3.0000E-02
1.50000E+01						

Y	P
IN	LBS/IN
0.000	0.000
0.108	65.462
0.216	92.577
0.324	107.855
0.432	117.776
0.540	124.553
0.648	129.079
0.756	131.867

0.864	133.247
0.972	133.448
1.080	132.639
1.188	130.946
1.296	128.471
2.160	92.669
3.024	56.814
3.888	20.959
32.400	20.959

P-Multiplier = 1.000E+00 Y-Multiplier = 1.000E+00

#### AT THE EXCAVATION SIDE

KPY	DEPTH BELOW GS	DIAM	C	CAVG	GAMMA AVG	E50
	FT	IN	LBS/IN**2	LBS/IN**2	LBS/IN**3	
LBS/IN**3	0.36	18.000	1.74E+00	1.74E+00	3.46E-02	3.0000E-02
1.50000E+01						

Y	P
IN	LBS/IN
0.000	0.000
0.050	3.265
0.101	6.529
0.151	9.794
0.202	13.058
0.252	16.323
0.302	19.587
0.353	20.990
0.403	20.332
0.453	19.416
0.504	18.276
0.554	16.941
0.605	15.432
1.008	10.885
1.411	6.323
1.814	1.762
15.114	1.762

P-Multiplier = 1.000E+00 Y-Multiplier = 1.000E+00

#### AT THE BACKFILL SIDE

DEPTH BELOW GS	DIAM	C	CAVG	GAMMA AVG	E50
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KPY						
	FT	IN	LBS/IN**2	LBS/IN**2	LBS/IN**3	
LBS/IN**3	10.00	18.000	1.74E+00	1.80E+00	6.61E-02	3.0000E-02
1.50000E+01						

Y	P
IN	LBS/IN
0.000	0.000
0.108	66.181
0.216	93.595
0.324	109.041
0.432	119.072
0.540	125.922
0.648	130.498
0.756	133.317
0.864	134.712
0.972	134.916
1.080	134.097
1.188	132.386
1.296	129.883
2.160	93.688
3.024	57.439
3.888	21.190
32.400	21.190

P-Multiplier = 1.000E+00 Y-Multiplier = 1.000E+00

#### AT THE EXCAVATION SIDE

	DEPTH BELOW GS	DIAM	C	CAVG	GAMMA AVG	E50
KPY						
	FT	IN	LBS/IN**2	LBS/IN**2	LBS/IN**3	
LBS/IN**3	0.72	18.000	1.74E+00	1.74E+00	3.46E-02	3.0000E-02
1.50000E+01						

Y	P
IN	LBS/IN
0.000	0.000
0.061	7.856
0.121	15.712
0.182	22.553
0.242	24.121
0.303	24.945
0.364	25.235
0.424	25.112
0.485	24.652

0.546	23.909
0.606	22.922
0.667	21.722
0.727	20.331
1.212	14.631
1.697	8.916
2.182	3.201
18.185	3.201

P-Multiplier = 1.000E+00 Y-Multiplier = 1.000E+00

#### AT THE BACKFILL SIDE

KPY	DEPTH BELOW GS	DIAM	C	CAVG	GAMMA AVG	E50
	FT	IN	LBS/IN**2	LBS/IN**2	LBS/IN**3	
LBS/IN**3	10.36	18.000	1.74E+00	3.47E+00	6.50E-02	3.0000E-02
1.50000E+01						

Y	P
IN	LBS/IN
0.000	0.000
0.108	66.918
0.216	94.637
0.324	110.255
0.432	120.397
0.540	127.324
0.648	131.951
0.756	134.802
0.864	136.212
0.972	136.418
1.080	135.590
1.188	133.860
1.296	131.330
2.160	94.731
3.024	58.078
3.888	21.426
32.400	21.426

P-Multiplier = 1.000E+00 Y-Multiplier = 1.000E+00

#### AT THE EXCAVATION SIDE

KPY	DEPTH BELOW GS	DIAM	C	CAVG	GAMMA AVG	E50
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	FT	IN	LBS/IN**2	LBS/IN**2	LBS/IN**3	
LBS/IN**3	1.08	18.000	1.74E+00	1.74E+00	3.46E-02	3.0000E-02
1.50000E+01						

Y	P
IN	LBS/IN
0.000	0.000
0.071	13.774
0.142	22.139
0.213	25.482
0.283	27.427
0.354	28.561
0.425	29.114
0.496	29.216
0.567	28.952
0.638	28.382
0.709	27.547
0.779	26.480
0.850	25.223
1.417	18.278
1.984	11.333
2.551	4.388
21.257	4.388

P-Multiplier = 1.000E+00 Y-Multiplier = 1.000E+00

AT THE BACKFILL SIDE

	DEPTH BELOW GS	DIAM	C	CAVG	GAMMA AVG	E50
KPY	FT	IN	LBS/IN**2	LBS/IN**2	LBS/IN**3	
LBS/IN**3	10.72	18.000	1.74E+00	5.03E+00	6.40E-02	3.0000E-02
1.50000E+01						

Y	P
IN	LBS/IN
0.000	0.000
0.108	67.655
0.216	95.679
0.324	111.469
0.432	121.723
0.540	128.726
0.648	133.404
0.756	136.286
0.864	137.712
0.972	137.920



1.080	137.083
1.188	135.334
1.296	132.776
2.160	95.774
3.024	58.718
3.888	21.661
32.400	21.661

P-Multiplier = 1.000E+00 Y-Multiplier = 1.000E+00

#### AT THE EXCAVATION SIDE

KPY	DEPTH BELOW GS	DIAM	C	CAVG	GAMMA AVG	E50
	FT	IN	LBS/IN**2	LBS/IN**2	LBS/IN**3	
LBS/IN**3	1.43	18.000	1.74E+00	1.74E+00	3.46E-02	3.0000E-02
1.50000E+01						

Y	P
IN	LBS/IN
0.000	0.000
0.081	17.346
0.162	24.530
0.243	28.351
0.323	30.665
0.404	32.103
0.485	32.912
0.566	33.236
0.647	33.165
0.728	32.763
0.809	32.077
0.889	31.142
0.970	29.985
1.617	21.781
2.264	13.561
2.911	5.340
24.257	5.340

P-Multiplier = 1.000E+00 Y-Multiplier = 1.000E+00

#### AT THE BACKFILL SIDE

KPY	DEPTH BELOW GS	DIAM	C	CAVG	GAMMA AVG	E50
	FT	IN	LBS/IN**2	LBS/IN**2	LBS/IN**3	

LBS/IN\*\*3

11.07                      18.000      1.74E+00      6.50E+00      6.30E-02      3.0000E-02  
1.50000E+01

Y	P
IN	LBS/IN
0.000	0.000
0.108	68.375
0.216	96.697
0.324	112.655
0.432	123.018
0.540	130.096
0.648	134.824
0.756	137.736
0.864	139.177
0.972	139.387
1.080	138.542
1.188	136.774
1.296	134.188
2.160	96.793
3.024	59.342
3.888	21.892
32.400	21.892

P-Multiplier = 1.000E+00 Y-Multiplier = 1.000E+00

AT THE EXCAVATION SIDE

DEPTH BELOW GS	DIAM	PHI	GAMMA AVG	KPY	A	B	PC
FT	IN		LBS/IN**3	LBS/IN**3			LB /IN
1.45	18.00	28.00	3.46E-02	2.00E+01	1.80	1.30	4.68E+01

Y	P
IN	LBS/IN
0.000	0.000
0.022	1.867
0.043	3.733
0.083	7.093
0.122	10.453
0.161	13.813
0.200	17.173
0.239	20.533
0.278	23.893
0.317	27.253
0.356	30.613
0.395	33.972
0.434	37.332
0.615	52.888

0.796	68.443
0.977	83.998
1.173	83.998

P-Multiplier = 1.000E+00 Y-Multiplier = 1.000E+00

#### AT THE BACKFILL SIDE

DEPTH BELOW GS FT	DIAM IN	PHI	GAMMA AVG LBS/IN**3	KPY LBS/IN**3	A	B	PC LB /IN
11.09	18.00	28.00	6.30E-02	2.00E+01	0.88	0.50	8.10E+02

Y IN	P LBS/IN
0.000	0.000
0.010	23.996
0.020	47.991
0.038	91.184
0.056	134.376
0.074	177.568
0.092	220.760
0.110	263.952
0.128	307.145
0.146	334.479
0.164	358.977
0.182	382.442
0.200	405.012
0.283	507.615
0.367	610.219
0.450	712.822
0.540	712.822

P-Multiplier = 1.000E+00 Y-Multiplier = 1.000E+00

#### AT THE EXCAVATION SIDE

DEPTH BELOW GS FT	DIAM IN	PHI	GAMMA AVG LBS/IN**3	KPY LBS/IN**3	A	B	PC LB /IN
3.31	18.00	28.00	3.07E-02	2.00E+01	1.01	0.65	9.50E+01

Y IN	P LBS/IN
0.000	0.000
0.010	5.340
0.020	10.679
0.038	20.291

0.056	29.902
0.074	39.514
0.092	44.226
0.110	47.812
0.128	51.081
0.146	54.099
0.164	56.914
0.182	59.560
0.200	62.062
0.283	73.344
0.367	84.626
0.450	95.909
0.540	95.909

P-Multiplier = 1.000E+00 Y-Multiplier = 1.000E+00

AT THE BACKFILL SIDE

DEPTH BELOW GS FT	DIAM IN	PHI	GAMMA AVG LBS/IN**3	KPY LBS/IN**3	A	B	PC LB /IN
12.96	18.00	28.00	5.79E-02	2.00E+01	0.88	0.50	8.58E+02

Y IN	P LBS/IN
0.000	0.000
0.010	28.476
0.020	56.951
0.038	108.208
0.056	159.464
0.074	210.720
0.092	261.976
0.110	298.351
0.128	327.148
0.146	354.395
0.164	380.352
0.182	405.214
0.200	429.128
0.283	537.841
0.367	646.553
0.450	755.266
0.540	755.266

P-Multiplier = 1.000E+00 Y-Multiplier = 1.000E+00

AT THE EXCAVATION SIDE

DEPTH BELOW GS	DIAM	PHI	GAMMA AVG	KPY	A	B	PC
FT	IN		LBS/IN**3	LBS/IN**3			LB /IN
5.19	18.00	28.00	2.96E-02	2.00E+01	0.88	0.50	1.43E+02

Y	P
IN	LBS/IN
0.000	0.000
0.008	7.494
0.015	14.988
0.034	24.294
0.052	31.688
0.071	38.101
0.089	43.880
0.108	49.205
0.126	54.181
0.145	58.878
0.163	63.345
0.182	67.617
0.200	71.722
0.283	89.892
0.367	108.061
0.450	126.231
0.540	126.231

P-Multiplier = 1.000E+00 Y-Multiplier = 1.000E+00

AT THE BACKFILL SIDE

DEPTH BELOW GS	DIAM	PHI	GAMMA AVG	KPY	A	B	PC
FT	IN		LBS/IN**3	LBS/IN**3			LB /IN
14.83	18.00	28.00	5.41E-02	2.00E+01	0.88	0.50	9.07E+02

Y	P
IN	LBS/IN
0.000	0.000
0.010	32.976
0.020	65.951
0.038	125.308
0.056	184.664
0.074	244.020
0.092	282.743
0.110	315.193
0.128	345.615
0.146	374.400
0.164	401.822
0.182	428.088
0.200	453.352
0.283	568.201

0.367	683.050
0.450	797.899
0.540	797.899

P-Multiplier = 1.000E+00 Y-Multiplier = 1.000E+00

#### AT THE EXCAVATION SIDE

DEPTH BELOW GS FT	DIAM IN	PHI	GAMMA AVG LBS/IN**3	KPY LBS/IN**3	A	B	PC LB /IN
7.07	18.00	28.00	2.91E-02	2.00E+01	0.88	0.50	1.92E+02

Y IN	P LBS/IN
0.000	0.000
0.006	8.778
0.012	17.557
0.031	30.897
0.050	41.199
0.069	50.046
0.087	57.980
0.106	65.266
0.125	72.062
0.144	78.466
0.162	84.550
0.181	90.364
0.200	95.946
0.283	120.252
0.367	144.558
0.450	168.864
0.540	168.864

P-Multiplier = 1.000E+00 Y-Multiplier = 1.000E+00

#### AT THE BACKFILL SIDE

DEPTH BELOW GS FT	DIAM IN	PHI	GAMMA AVG LBS/IN**3	KPY LBS/IN**3	A	B	PC LB /IN
16.71	18.00	28.00	5.11E-02	2.00E+01	0.88	0.50	9.55E+02

Y IN	P LBS/IN
0.000	0.000
0.010	37.476
0.020	74.951
0.038	142.408

0.056	209.864
0.074	260.921
0.092	297.851
0.110	332.034
0.128	364.082
0.146	394.405
0.164	423.293
0.182	450.961
0.200	477.575
0.283	598.561
0.367	719.547
0.450	840.533
0.540	840.533

P-Multiplier = 1.000E+00 Y-Multiplier = 1.000E+00

AT THE EXCAVATION SIDE

DEPTH BELOW GS	DIAM	PHI	GAMMA AVG	KPY	A	B	PC
FT	IN		LBS/IN**3	LBS/IN**3			LB /IN
8.93	18.00	28.00	2.88E-02	2.00E+01	0.88	0.50	2.40E+02

Y	P
IN	LBS/IN
0.000	0.000
0.005	10.202
0.011	20.405
0.030	37.699
0.049	50.846
0.068	62.079
0.087	72.127
0.105	81.343
0.124	89.928
0.143	98.014
0.162	105.691
0.181	113.024
0.200	120.062
0.283	150.477
0.367	180.893
0.450	211.308
0.540	211.308

P-Multiplier = 1.000E+00 Y-Multiplier = 1.000E+00

AT THE BACKFILL SIDE

DEPTH BELOW GS	DIAM	PHI	GAMMA AVG	KPY	A	B	PC
FT	IN		LBS/IN**3	LBS/IN**3			LB /IN
18.57	18.00	28.00	4.87E-02	2.00E+01	0.88	0.50	1.00E+03

Y	P
IN	LBS/IN
0.000	0.000
0.010	41.956
0.020	83.911
0.038	159.432
0.056	231.371
0.074	274.096
0.092	312.891
0.110	348.801
0.128	382.467
0.146	414.321
0.164	444.668
0.182	473.733
0.200	501.691
0.283	628.787
0.367	755.882
0.450	882.977
0.540	882.977

P-Multiplier = 1.000E+00 Y-Multiplier = 1.000E+00

AT THE EXCAVATION SIDE

DEPTH BELOW GS	DIAM	C	CAVG	GAMMA AVG	E50
FT	IN	LBS/IN**2	LBS/IN**2	LBS/IN**3	
8.95	18.000	5.21E+00	5.21E+00	2.88E-02	1.5000E-02

KPY

LBS/IN\*\*3

8.00000E+01

Y	P
IN	LBS/IN
0.000	0.000
0.054	66.584
0.108	94.165
0.162	109.705
0.216	119.797
0.270	126.689
0.324	131.293
0.378	134.129
0.432	135.533
0.486	135.737
0.540	134.914



0.594	133.192
0.648	130.674
1.080	94.258
1.512	57.788
1.944	21.319
16.200	21.319

P-Multiplier = 1.000E+00 Y-Multiplier = 1.000E+00

#### AT THE BACKFILL SIDE

KPY	DEPTH BELOW GS	DIAM	C	CAVG	GAMMA AVG	E50
	FT	IN	LBS/IN**2	LBS/IN**2	LBS/IN**3	
LBS/IN**3	18.59	18.000	5.21E+00	5.21E+00	4.87E-02	1.5000E-02
8.00000E+01						

Y	P
IN	LBS/IN
0.000	0.000
0.054	114.913
0.108	162.511
0.162	189.331
0.216	206.747
0.270	218.642
0.324	226.588
0.378	231.482
0.432	233.905
0.486	234.258
0.540	232.836
0.594	229.865
0.648	225.520
1.080	162.673
1.512	99.732
1.944	36.792
16.200	36.792

P-Multiplier = 1.000E+00 Y-Multiplier = 1.000E+00

#### AT THE EXCAVATION SIDE

KPY	DEPTH BELOW GS	DIAM	C	CAVG	GAMMA AVG	E50
	FT	IN	LBS/IN**2	LBS/IN**2	LBS/IN**3	
LBS/IN**3						

10.06 18.000 5.21E+00 5.21E+00 2.96E-02 1.5000E-02  
8.00000E+01

Y	P
IN	LBS/IN
0.000	0.000
0.054	68.947
0.108	97.505
0.162	113.597
0.216	124.046
0.270	131.183
0.324	135.951
0.378	138.887
0.432	140.341
0.486	140.552
0.540	139.700
0.594	137.917
0.648	135.310
1.080	97.602
1.512	59.838
1.944	22.075
16.200	22.075

P-Multiplier = 1.000E+00 Y-Multiplier = 1.000E+00

AT THE BACKFILL SIDE

KPY DEPTH BELOW GS DIAM C CAVG GAMMA AVG E50  
FT IN LBS/IN\*\*2 LBS/IN\*\*2 LBS/IN\*\*3  
LBS/IN\*\*3  
19.71 18.000 5.21E+00 5.75E+00 4.80E-02 1.5000E-02  
8.00000E+01

Y	P
IN	LBS/IN
0.000	0.000
0.054	117.275
0.108	165.852
0.162	193.223
0.216	210.997
0.270	223.137
0.324	231.246
0.378	236.241
0.432	238.713
0.486	239.073
0.540	237.622
0.594	234.590

0.648	230.156
1.080	166.016
1.512	101.782
1.944	37.548
16.200	37.548

P-Multiplier = 1.000E+00 Y-Multiplier = 1.000E+00

#### AT THE EXCAVATION SIDE

KPY	DEPTH BELOW GS	DIAM	C	CAVG	GAMMA AVG	E50
	FT	IN	LBS/IN**2	LBS/IN**2	LBS/IN**3	
LBS/IN**3	11.19	18.000	5.21E+00	3.02E+01	3.02E-02	1.5000E-02
8.00000E+01						

Y	P
IN	LBS/IN
0.000	0.000
0.054	71.326
0.108	100.871
0.162	117.518
0.216	128.328
0.270	135.711
0.324	140.643
0.378	143.681
0.432	145.184
0.486	145.404
0.540	144.521
0.594	142.677
0.648	139.980
1.080	100.971
1.512	61.904
1.944	22.837
16.200	22.837

P-Multiplier = 1.000E+00 Y-Multiplier = 1.000E+00

#### AT THE BACKFILL SIDE

KPY	DEPTH BELOW GS	DIAM	C	CAVG	GAMMA AVG	E50
	FT	IN	LBS/IN**2	LBS/IN**2	LBS/IN**3	
LBS/IN**3	20.83	18.000	5.21E+00	1.04E+01	4.73E-02	1.5000E-02

8.00000E+01

Y	P
IN	LBS/IN
0.000	0.000
0.054	119.654
0.108	169.217
0.162	197.144
0.216	215.279
0.270	227.665
0.324	235.938
0.378	241.034
0.432	243.557
0.486	243.924
0.540	242.444
0.594	239.350
0.648	234.826
1.080	169.385
1.512	103.848
1.944	38.310
16.200	38.310

P-Multiplier = 1.000E+00 Y-Multiplier = 1.000E+00

AT THE EXCAVATION SIDE

KPY	DEPTH BELOW GS	DIAM	C	CAVG	GAMMA AVG	E50
	FT	IN	LBS/IN**2	LBS/IN**2	LBS/IN**3	
LBS/IN**3	12.31	18.000	5.21E+00	3.85E+01	3.07E-02	1.5000E-02
8.00000E+01						

Y	P
IN	LBS/IN
0.000	0.000
0.054	73.706
0.108	104.236
0.162	121.439
0.216	132.609
0.270	140.239
0.324	145.336
0.378	148.475
0.432	150.028
0.486	150.255
0.540	149.343
0.594	147.437
0.648	144.651

1.080	104.340
1.512	63.969
1.944	23.599
16.200	23.599

P-Multiplier = 1.000E+00 Y-Multiplier = 1.000E+00

#### AT THE BACKFILL SIDE

KPY	DEPTH BELOW GS	DIAM	C	CAVG	GAMMA AVG	E50
	FT	IN	LBS/IN**2	LBS/IN**2	LBS/IN**3	
LBS/IN**3	21.95	18.000	5.21E+00	1.43E+01	4.67E-02	1.5000E-02
8.00000E+01						

Y	P
IN	LBS/IN
0.000	0.000
0.054	122.034
0.108	172.582
0.162	201.065
0.216	219.560
0.270	232.192
0.324	240.631
0.378	245.828
0.432	248.401
0.486	248.775
0.540	247.266
0.594	244.111
0.648	239.496
1.080	172.754
1.512	105.913
1.944	39.072
16.200	39.072

P-Multiplier = 1.000E+00 Y-Multiplier = 1.000E+00

#### AT THE EXCAVATION SIDE

KPY	DEPTH BELOW GS	DIAM	C	CAVG	GAMMA AVG	E50
	FT	IN	LBS/IN**2	LBS/IN**2	LBS/IN**3	
LBS/IN**3	13.43	18.000	5.21E+00	4.27E+01	3.11E-02	1.5000E-02
8.00000E+01						

Y	P
IN	LBS/IN
0.000	0.000
0.054	76.068
0.108	107.576
0.162	125.331
0.216	136.859
0.270	144.733
0.324	149.993
0.378	153.233
0.432	154.836
0.486	155.070
0.540	154.129
0.594	152.162
0.648	149.286
1.080	107.683
1.512	66.019
1.944	24.355
16.200	24.355

P-Multiplier = 1.000E+00 Y-Multiplier = 1.000E+00

AT THE BACKFILL SIDE

KPY	DEPTH BELOW GS	DIAM	C	CAVG	GAMMA AVG	E50
	FT	IN	LBS/IN**2	LBS/IN**2	LBS/IN**3	
LBS/IN**3	23.07	18.000	5.21E+00	1.75E+01	4.62E-02	1.5000E-02
8.00000E+01						

Y	P
IN	LBS/IN
0.000	0.000
0.054	124.396
0.108	175.923
0.162	204.957
0.216	223.810
0.270	236.687
0.324	245.288
0.378	250.586
0.432	253.209
0.486	253.591
0.540	252.052
0.594	248.836
0.648	244.132
1.080	176.098

1.512	107.963
1.944	39.828
16.200	39.828

P-Multiplier = 1.000E+00 Y-Multiplier = 1.000E+00

#### AT THE EXCAVATION SIDE

KPY	DEPTH BELOW GS	DIAM	C	CAVG	GAMMA AVG	E50
	FT	IN	LBS/IN**2	LBS/IN**2	LBS/IN**3	
LBS/IN**3	13.45	18.000	1.04E+01	1.04E+01	3.11E-02	1.0000E-02
3.50000E+02						

Y	P
IN	LBS/IN
0.000	0.000
0.036	127.453
0.072	180.246
0.108	209.993
0.144	229.309
0.180	242.502
0.216	251.315
0.252	256.744
0.288	259.430
0.324	259.822
0.360	258.245
0.396	254.950
0.432	250.131
0.720	180.425
1.008	110.616
1.296	40.807
10.800	40.807

P-Multiplier = 1.000E+00 Y-Multiplier = 1.000E+00

#### AT THE BACKFILL SIDE

KPY	DEPTH BELOW GS	DIAM	C	CAVG	GAMMA AVG	E50
	FT	IN	LBS/IN**2	LBS/IN**2	LBS/IN**3	
LBS/IN**3	23.09	18.000	1.04E+01	1.04E+01	4.62E-02	1.0000E-02
3.50000E+02						

Y	P
IN	LBS/IN
0.000	0.000
0.036	175.781
0.072	248.592
0.108	289.619
0.144	316.260
0.180	334.456
0.216	346.610
0.252	354.097
0.288	357.802
0.324	358.342
0.360	356.168
0.396	351.623
0.432	344.977
0.720	248.839
1.008	152.560
1.296	56.281
10.800	56.281

P-Multiplier = 1.000E+00 Y-Multiplier = 1.000E+00

#### AT THE EXCAVATION SIDE

KPY	DEPTH BELOW GS	DIAM	C	CAVG	GAMMA AVG	E50
	FT	IN	LBS/IN**2	LBS/IN**2	LBS/IN**3	
LBS/IN**3	15.94	18.000	1.04E+01	1.04E+01	3.20E-02	1.0000E-02
3.50000E+02						

Y	P
IN	LBS/IN
0.000	0.000
0.036	132.894
0.072	187.941
0.108	218.958
0.144	239.099
0.180	252.855
0.216	262.044
0.252	267.705
0.288	270.506
0.324	270.914
0.360	269.270
0.396	265.834
0.432	260.809
0.720	188.127
1.008	115.338



1.296	42.549
10.800	42.549

P-Multiplier = 1.000E+00 Y-Multiplier = 1.000E+00

# AT THE BACKFILL SIDE

KPY	DEPTH BELOW GS	DIAM	C	CAVG	GAMMA AVG	E50
	FT	IN	LBS/IN**2	LBS/IN**2	LBS/IN**3	
LBS/IN**3	25.58	18.000	1.04E+01	1.26E+01	4.53E-02	1.0000E-02
3.50000E+02						

Y	P
IN	LBS/IN
0.000	0.000
0.036	181.222
0.072	256.287
0.108	298.584
0.144	326.049
0.180	344.809
0.216	357.339
0.252	365.058
0.288	368.878
0.324	369.435
0.360	367.193
0.396	362.507
0.432	355.655
0.720	256.542
1.008	157.282
1.296	58.023
10.800	58.023

P-Multiplier = 1.000E+00 Y-Multiplier = 1.000E+00

# AT THE EXCAVATION SIDE

KPY	DEPTH BELOW GS	DIAM	C	CAVG	GAMMA AVG	E50
	FT	IN	LBS/IN**2	LBS/IN**2	LBS/IN**3	
LBS/IN**3	18.44	18.000	1.04E+01	3.57E+01	3.27E-02	1.0000E-02
3.50000E+02						

Y	P
---	---

IN	LBS/IN
0.000	0.000
0.036	138.354
0.072	195.661
0.108	227.953
0.144	248.921
0.180	263.243
0.216	272.809
0.252	278.702
0.288	281.618
0.324	282.043
0.360	280.332
0.396	276.755
0.432	271.524
0.720	195.856
1.008	120.077
1.296	44.297
10.800	44.297

P-Multiplier = 1.000E+00 Y-Multiplier = 1.000E+00

#### AT THE BACKFILL SIDE

KPY	DEPTH BELOW GS	DIAM	C	CAVG	GAMMA AVG	E50
	FT	IN	LBS/IN**2	LBS/IN**2	LBS/IN**3	
LBS/IN**3	28.08	18.000	1.04E+01	2.08E+01	4.45E-02	1.0000E-02
3.50000E+02						

Y	P
IN	LBS/IN
0.000	0.000
0.036	186.682
0.072	264.008
0.108	307.579
0.144	335.872
0.180	355.196
0.216	368.104
0.252	376.056
0.288	379.991
0.324	380.564
0.360	378.255
0.396	373.428
0.432	366.370
0.720	264.270
1.008	162.020
1.296	59.771

10.800

59.771

P-Multiplier = 1.000E+00 Y-Multiplier = 1.000E+00

## AT THE EXCAVATION SIDE

KPY	DEPTH BELOW GS	DIAM	C	CAVG	GAMMA AVG	E50
	FT	IN	LBS/IN**2	LBS/IN**2	LBS/IN**3	
LBS/IN**3	20.94	18.000	1.04E+01	4.42E+01	3.32E-02	1.0000E-02
3.50000E+02						

Y	P
IN	LBS/IN
0.000	0.000
0.036	143.813
0.072	203.382
0.108	236.948
0.144	258.744
0.180	273.630
0.216	283.575
0.252	289.700
0.288	292.731
0.324	293.173
0.360	291.394
0.396	287.676
0.432	282.238
0.720	203.584
1.008	124.815
1.296	46.045
10.800	46.045

P-Multiplier = 1.000E+00 Y-Multiplier = 1.000E+00

## AT THE BACKFILL SIDE

KPY	DEPTH BELOW GS	DIAM	C	CAVG	GAMMA AVG	E50
	FT	IN	LBS/IN**2	LBS/IN**2	LBS/IN**3	
LBS/IN**3	30.58	18.000	1.04E+01	2.67E+01	4.39E-02	1.0000E-02
3.50000E+02						

Y	P
IN	LBS/IN

0.000	0.000
0.036	192.141
0.072	271.729
0.108	316.574
0.144	345.694
0.180	365.584
0.216	378.870
0.252	387.053
0.288	391.103
0.324	391.693
0.360	389.317
0.396	384.349
0.432	377.084
0.720	271.999
1.008	166.759
1.296	61.519
10.800	61.519

P-Multiplier = 1.000E+00 Y-Multiplier = 1.000E+00

#### AT THE EXCAVATION SIDE

KPY	DEPTH BELOW GS	DIAM	C	CAVG	GAMMA AVG	E50
	FT	IN	LBS/IN**2	LBS/IN**2	LBS/IN**3	
LBS/IN**3	23.43	18.000	1.04E+01	4.84E+01	3.36E-02	1.0000E-02
3.50000E+02						

Y	P
IN	LBS/IN
0.000	0.000
0.036	149.254
0.072	211.077
0.108	245.913
0.144	268.533
0.180	283.983
0.216	294.304
0.252	300.661
0.288	303.807
0.324	304.265
0.360	302.419
0.396	298.560
0.432	292.917
0.720	211.287
1.008	129.537
1.296	47.787
10.800	47.787

P-Multiplier = 1.000E+00 Y-Multiplier = 1.000E+00

AT THE BACKFILL SIDE

KPY	DEPTH BELOW GS	DIAM	C	CAVG	GAMMA AVG	E50
	FT	IN	LBS/IN**2	LBS/IN**2	LBS/IN**3	
LBS/IN**3	33.07	18.000	1.04E+01	3.11E+01	4.34E-02	1.0000E-02
3.50000E+02						

Y	P
IN	LBS/IN
0.000	0.000
0.036	197.582
0.072	279.424
0.108	325.539
0.144	355.484
0.180	375.937
0.216	389.599
0.252	398.014
0.288	402.179
0.324	402.786
0.360	400.342
0.396	395.233
0.432	387.762
0.720	279.701
1.008	171.481
1.296	63.261
10.800	63.261

P-Multiplier = 1.000E+00 Y-Multiplier = 1.000E+00

AT THE EXCAVATION SIDE

KPY	DEPTH BELOW GS	DIAM	C	CAVG	GAMMA AVG	E50
	FT	IN	LBS/IN**2	LBS/IN**2	LBS/IN**3	
LBS/IN**3	23.45	18.000	3.12E+01	3.12E+01	3.36E-02	4.0000E-03
1.50000E+03						

Y	P
IN	LBS/IN
0.000	0.000

0.014	354.688
0.029	501.605
0.043	584.388
0.058	638.143
0.072	674.859
0.086	699.384
0.101	714.491
0.115	721.967
0.130	723.057
0.144	718.670
0.158	709.499
0.173	696.088
0.288	502.103
0.403	307.832
0.518	113.562
4.320	113.562

P-Multiplier = 1.000E+00 Y-Multiplier = 1.000E+00

AT THE BACKFILL SIDE

KPY	DEPTH BELOW GS	DIAM	C	CAVG	GAMMA AVG	E50
	FT	IN	LBS/IN**2	LBS/IN**2	LBS/IN**3	
LBS/IN**3	33.09	18.000	3.12E+01	3.12E+01	4.34E-02	4.0000E-03
1.50000E+03						

Y	P
IN	LBS/IN
0.000	0.000
0.014	403.016
0.029	569.951
0.043	664.014
0.058	725.094
0.072	766.812
0.086	794.679
0.101	811.844
0.115	820.339
0.130	821.577
0.144	816.592
0.158	806.172
0.173	790.933
0.288	570.517
0.403	349.776
0.518	129.035
4.320	129.035

P-Multiplier = 1.000E+00 Y-Multiplier = 1.000E+00

AT THE EXCAVATION SIDE

KPY	DEPTH BELOW GS	DIAM	C	CAVG	GAMMA AVG	E50
	FT	IN	LBS/IN**2	LBS/IN**2	LBS/IN**3	
LBS/IN**3	24.35	18.000	3.12E+01	3.12E+01	3.38E-02	4.0000E-03
1.50000E+03						

Y	P
IN	LBS/IN
0.000	0.000
0.014	356.811
0.029	504.607
0.043	587.886
0.058	641.964
0.072	678.899
0.086	703.571
0.101	718.768
0.115	726.289
0.130	727.385
0.144	722.972
0.158	713.746
0.173	700.255
0.288	505.109
0.403	309.675
0.518	114.242
4.320	114.242

P-Multiplier = 1.000E+00 Y-Multiplier = 1.000E+00

AT THE BACKFILL SIDE

KPY	DEPTH BELOW GS	DIAM	C	CAVG	GAMMA AVG	E50
	FT	IN	LBS/IN**2	LBS/IN**2	LBS/IN**3	
LBS/IN**3	33.99	18.000	3.12E+01	3.39E+01	4.33E-02	4.0000E-03
1.50000E+03						

Y	P
IN	LBS/IN
0.000	0.000
0.014	405.140

0.029	572.954
0.043	667.513
0.058	728.914
0.072	770.852
0.086	798.866
0.101	816.121
0.115	824.661
0.130	825.906
0.144	820.895
0.158	810.420
0.173	795.101
0.288	573.523
0.403	351.619
0.518	129.715
4.320	129.715

P-Multiplier = 1.000E+00 Y-Multiplier = 1.000E+00

# AT THE EXCAVATION SIDE

KPY	DEPTH BELOW GS	DIAM	C	CAVG	GAMMA AVG	E50
	FT	IN	LBS/IN**2	LBS/IN**2	LBS/IN**3	
LBS/IN**3	25.26	18.000	3.12E+01	2.13E+02	3.40E-02	4.0000E-03
1.50000E+03						

Y	P
IN	LBS/IN
0.000	0.000
0.014	358.954
0.029	507.638
0.043	591.417
0.058	645.819
0.072	682.976
0.086	707.796
0.101	723.085
0.115	730.651
0.130	731.754
0.144	727.314
0.158	718.033
0.173	704.460
0.288	508.143
0.403	311.535
0.518	114.928
4.320	114.928

P-Multiplier = 1.000E+00 Y-Multiplier = 1.000E+00



AT THE BACKFILL SIDE

KPY	DEPTH BELOW GS	DIAM	C	CAVG	GAMMA AVG	E50
	FT	IN	LBS/IN**2	LBS/IN**2	LBS/IN**3	
LBS/IN**3	34.90	18.000	3.12E+01	6.25E+01	4.32E-02	4.0000E-03
1.50000E+03						

Y	P
IN	LBS/IN
0.000	0.000
0.014	407.283
0.029	575.984
0.043	671.043
0.058	732.770
0.072	774.930
0.086	803.092
0.101	820.438
0.115	829.023
0.130	830.274
0.144	825.237
0.158	814.706
0.173	799.306
0.288	576.557
0.403	353.479
0.518	130.401
4.320	130.401

P-Multiplier = 1.000E+00 Y-Multiplier = 1.000E+00

AT THE EXCAVATION SIDE

KPY	DEPTH BELOW GS	DIAM	C	CAVG	GAMMA AVG	E50
	FT	IN	LBS/IN**2	LBS/IN**2	LBS/IN**3	
LBS/IN**3	26.17	18.000	3.12E+01	2.73E+02	3.42E-02	4.0000E-03
1.50000E+03						

Y	P
IN	LBS/IN
0.000	0.000
0.014	361.097
0.029	510.669

0.043	594.948
0.058	649.675
0.072	687.054
0.086	712.022
0.101	727.402
0.115	735.013
0.130	736.123
0.144	731.656
0.158	722.320
0.173	708.666
0.288	511.176
0.403	313.395
0.518	115.614
4.320	115.614

P-Multiplier = 1.000E+00 Y-Multiplier = 1.000E+00

AT THE BACKFILL SIDE

KPY	DEPTH BELOW GS	DIAM	C	CAVG	GAMMA AVG	E50
	FT	IN	LBS/IN**2	LBS/IN**2	LBS/IN**3	
LBS/IN**3	35.81	18.000	3.12E+01	8.69E+01	4.31E-02	4.0000E-03
1.50000E+03						

Y	P
IN	LBS/IN
0.000	0.000
0.014	409.426
0.029	579.015
0.043	674.574
0.058	736.625
0.072	779.007
0.086	807.317
0.101	824.755
0.115	833.385
0.130	834.643
0.144	829.579
0.158	818.993
0.173	803.512
0.288	579.591
0.403	355.339
0.518	131.087
4.320	131.087

P-Multiplier = 1.000E+00 Y-Multiplier = 1.000E+00

AT THE EXCAVATION SIDE

KPY	DEPTH BELOW GS	DIAM	C	CAVG	GAMMA AVG	E50
	FT	IN	LBS/IN**2	LBS/IN**2	LBS/IN**3	
LBS/IN**3	27.07	18.000	3.12E+01	3.04E+02	3.44E-02	4.0000E-03
1.50000E+03						

Y	P
IN	LBS/IN
0.000	0.000
0.014	363.221
0.029	513.672
0.043	598.447
0.058	653.495
0.072	691.094
0.086	716.209
0.101	731.679
0.115	739.335
0.130	740.451
0.144	735.959
0.158	726.567
0.173	712.833
0.288	514.182
0.403	315.238
0.518	116.294
4.320	116.294

P-Multiplier = 1.000E+00 Y-Multiplier = 1.000E+00

AT THE BACKFILL SIDE

KPY	DEPTH BELOW GS	DIAM	C	CAVG	GAMMA AVG	E50
	FT	IN	LBS/IN**2	LBS/IN**2	LBS/IN**3	
LBS/IN**3	36.71	18.000	3.12E+01	1.08E+02	4.30E-02	4.0000E-03
1.50000E+03						

Y	P
IN	LBS/IN
0.000	0.000
0.014	411.549
0.029	582.018
0.043	678.073

0.058	740.446
0.072	783.047
0.086	811.504
0.101	829.032
0.115	837.708
0.130	838.972
0.144	833.881
0.158	823.240
0.173	807.679
0.288	582.597
0.403	357.182
0.518	131.767
4.320	131.767

P-Multiplier = 1.000E+00 Y-Multiplier = 1.000E+00

New Wall

# RESULTS

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NUMBER OF ITERATIONS : 7

\*\*\*\*\* ANALYSIS COMPLETED \*\*\*\*\*

STA I	X	DEFL.	SLOPE	MOMENT	SHEAR	SOIL_REACT
NET_FORCE/STA	EI					
FT		IN	RAD	LBS-IN	LBS	LBS/IN
LBS	LBS-IN**2					
-----	-----	-----	-----	-----	-----	-----
0	0.000E+00	3.999E+00	-1.926E-02	-1.907E-07	-8.827E-08	0.000E+00
-4.414E-08	8.013E+09					
1	3.600E-01	3.916E+00	-1.926E-02	-5.720E-07	5.744E+01	0.000E+00
1.149E+02	8.013E+09					
2	7.200E-01	3.832E+00	-1.926E-02	4.963E+02	1.799E+02	0.000E+00
1.301E+02	8.013E+09					
3	1.080E+00	3.749E+00	-1.926E-02	1.555E+03	3.177E+02	0.000E+00
1.454E+02	8.013E+09					
4	1.440E+00	3.666E+00	-1.925E-02	3.241E+03	4.707E+02	0.000E+00
1.606E+02	8.013E+09					
5	1.800E+00	3.583E+00	-1.925E-02	5.622E+03	6.390E+02	0.000E+00
1.759E+02	8.013E+09					
6	2.160E+00	3.500E+00	-1.925E-02	8.762E+03	8.225E+02	0.000E+00
1.911E+02	8.013E+09					
7	2.520E+00	3.416E+00	-1.924E-02	1.273E+04	1.021E+03	0.000E+00
2.064E+02	8.013E+09					
8	2.880E+00	3.333E+00	-1.923E-02	1.759E+04	1.235E+03	0.000E+00
2.216E+02	8.013E+09					
9	3.240E+00	3.250E+00	-1.922E-02	2.340E+04	1.464E+03	0.000E+00

2.369E+02	8.013E+09						
10	3.600E+00	3.167E+00	-1.921E-02	3.024E+04	1.709E+03	0.000E+00	
2.521E+02	8.013E+09						
11	3.960E+00	3.084E+00	-1.919E-02	3.817E+04	1.969E+03	0.000E+00	
2.674E+02	8.013E+09						
12	4.320E+00	3.002E+00	-1.917E-02	4.725E+04	2.244E+03	0.000E+00	
2.826E+02	8.013E+09						
13	4.680E+00	2.919E+00	-1.914E-02	5.755E+04	2.534E+03	0.000E+00	
2.979E+02	8.013E+09						
14	5.040E+00	2.836E+00	-1.910E-02	6.914E+04	2.839E+03	0.000E+00	
3.131E+02	8.013E+09						
15	5.400E+00	2.754E+00	-1.906E-02	8.208E+04	3.160E+03	0.000E+00	
3.284E+02	8.013E+09						
16	5.760E+00	2.671E+00	-1.902E-02	9.645E+04	3.496E+03	0.000E+00	
3.436E+02	8.013E+09						
17	6.120E+00	2.589E+00	-1.896E-02	1.123E+05	3.847E+03	0.000E+00	
3.589E+02	8.013E+09						
18	6.480E+00	2.508E+00	-1.889E-02	1.297E+05	4.214E+03	0.000E+00	
3.741E+02	8.013E+09						
19	6.840E+00	2.426E+00	-1.882E-02	1.487E+05	4.596E+03	0.000E+00	
3.894E+02	8.013E+09						
20	7.200E+00	2.345E+00	-1.873E-02	1.694E+05	4.993E+03	0.000E+00	
4.046E+02	8.013E+09						
21	7.560E+00	2.264E+00	-1.864E-02	1.918E+05	5.405E+03	0.000E+00	
4.199E+02	8.013E+09						
22	7.920E+00	2.184E+00	-1.853E-02	2.161E+05	5.832E+03	0.000E+00	
4.351E+02	8.013E+09						
23	8.280E+00	2.104E+00	-1.840E-02	2.422E+05	6.275E+03	0.000E+00	
4.504E+02	8.013E+09						
24	8.640E+00	2.025E+00	-1.826E-02	2.703E+05	6.736E+03	0.000E+00	
4.717E+02	8.013E+09						
25	9.000E+00	1.946E+00	-1.811E-02	3.004E+05	7.221E+03	0.000E+00	
4.974E+02	8.013E+09						
26	9.360E+00	1.869E+00	-1.794E-02	3.327E+05	7.731E+03	0.000E+00	
5.232E+02	8.013E+09						
27	9.720E+00	1.791E+00	-1.775E-02	3.672E+05	8.037E+03	-2.587E-02	
8.924E+01	8.013E+09						
28	1.008E+01	1.715E+00	-1.754E-02	4.021E+05	8.106E+03	-2.880E+00	
4.854E+01	8.013E+09						
29	1.044E+01	1.640E+00	-1.732E-02	4.373E+05	8.140E+03	-9.589E+00	
1.956E+01	8.013E+09						
30	1.080E+01	1.566E+00	-1.707E-02	4.725E+05	8.145E+03	-1.646E+01	
-1.012E+01	8.013E+09						
31	1.116E+01	1.492E+00	-1.681E-02	5.076E+05	8.120E+03	-2.336E+01	
-3.995E+01	8.013E+09						
32	1.152E+01	1.420E+00	-1.652E-02	5.426E+05	8.047E+03	-3.860E+01	
-1.058E+02	8.013E+09						
33	1.188E+01	1.350E+00	-1.622E-02	5.772E+05	7.909E+03	-5.347E+01	
-1.700E+02	8.013E+09						
34	1.224E+01	1.280E+00	-1.590E-02	6.110E+05	7.708E+03	-6.797E+01	

-2.327E+02	8.013E+09					
35	1.260E+01	1.212E+00	-1.556E-02	6.438E+05	7.445E+03	-8.211E+01
-2.938E+02	8.013E+09					
36	1.296E+01	1.146E+00	-1.521E-02	6.753E+05	7.121E+03	-9.591E+01
-3.534E+02	8.013E+09					
37	1.332E+01	1.081E+00	-1.484E-02	7.053E+05	6.755E+03	-1.020E+02
-3.795E+02	8.013E+09					
38	1.368E+01	1.018E+00	-1.445E-02	7.336E+05	6.362E+03	-1.080E+02
-4.057E+02	8.013E+09					
39	1.404E+01	9.559E-01	-1.405E-02	7.603E+05	5.943E+03	-1.141E+02
-4.319E+02	8.013E+09					
40	1.440E+01	8.961E-01	-1.363E-02	7.850E+05	5.498E+03	-1.201E+02
-4.580E+02	8.013E+09					
41	1.476E+01	8.382E-01	-1.320E-02	8.078E+05	5.027E+03	-1.262E+02
-4.842E+02	8.013E+09					
42	1.512E+01	7.821E-01	-1.276E-02	8.284E+05	4.524E+03	-1.347E+02
-5.211E+02	8.013E+09					
43	1.548E+01	7.279E-01	-1.231E-02	8.469E+05	3.985E+03	-1.433E+02
-5.580E+02	8.013E+09					
44	1.584E+01	6.758E-01	-1.185E-02	8.629E+05	3.408E+03	-1.518E+02
-5.949E+02	8.013E+09					
45	1.620E+01	6.256E-01	-1.138E-02	8.763E+05	2.795E+03	-1.604E+02
-6.318E+02	8.013E+09					
46	1.656E+01	5.775E-01	-1.090E-02	8.870E+05	2.145E+03	-1.689E+02
-6.687E+02	8.013E+09					
47	1.692E+01	5.314E-01	-1.042E-02	8.948E+05	1.461E+03	-1.760E+02
-6.992E+02	8.013E+09					
48	1.728E+01	4.874E-01	-9.938E-03	8.996E+05	7.465E+02	-1.830E+02
-7.297E+02	8.013E+09					
49	1.764E+01	4.455E-01	-9.453E-03	9.013E+05	4.691E+00	-1.886E+02
-7.539E+02	8.013E+09					
50	1.800E+01	4.057E-01	-8.967E-03	8.997E+05	-7.351E+02	-1.821E+02
-7.257E+02	8.013E+09					
51	1.836E+01	3.680E-01	-8.484E-03	8.949E+05	-1.446E+03	-1.753E+02
-6.964E+02	8.013E+09					
52	1.872E+01	3.324E-01	-8.003E-03	8.872E+05	-2.128E+03	-1.684E+02
-6.664E+02	8.013E+09					
53	1.908E+01	2.989E-01	-7.528E-03	8.765E+05	-2.751E+03	-1.487E+02
-5.814E+02	8.013E+09					
54	1.944E+01	2.674E-01	-7.059E-03	8.634E+05	-3.304E+03	-1.355E+02
-5.241E+02	8.013E+09					
55	1.980E+01	2.379E-01	-6.597E-03	8.480E+05	-3.810E+03	-1.269E+02
-4.872E+02	8.013E+09					
56	2.016E+01	2.104E-01	-6.145E-03	8.305E+05	-4.292E+03	-1.243E+02
-4.761E+02	8.013E+09					
57	2.052E+01	1.848E-01	-5.702E-03	8.109E+05	-4.760E+03	-1.207E+02
-4.604E+02	8.013E+09					
58	2.088E+01	1.611E-01	-5.271E-03	7.894E+05	-5.213E+03	-1.172E+02
-4.454E+02	8.013E+09					
59	2.124E+01	1.393E-01	-4.852E-03	7.659E+05	-5.646E+03	-1.117E+02

-4.216E+02	8.013E+09					
60	2.160E+01	1.192E-01	-4.446E-03	7.406E+05	-6.057E+03	-1.066E+02
-3.996E+02	8.013E+09					
61	2.196E+01	1.009E-01	-4.054E-03	7.136E+05	-6.442E+03	-1.002E+02
-3.717E+02	8.013E+09					
62	2.232E+01	8.418E-02	-3.677E-03	6.849E+05	-6.796E+03	-9.173E+01
-3.352E+02	8.013E+09					
63	2.268E+01	6.910E-02	-3.315E-03	6.548E+05	-7.114E+03	-8.400E+01
-3.018E+02	8.013E+09					
64	2.304E+01	5.554E-02	-2.971E-03	6.235E+05	-7.401E+03	-7.697E+01
-2.714E+02	8.013E+09					
65	2.340E+01	4.343E-02	-2.644E-03	5.909E+05	-7.664E+03	-7.305E+01
-2.545E+02	8.013E+09					
66	2.376E+01	3.270E-02	-2.334E-03	5.572E+05	-7.906E+03	-6.739E+01
-2.300E+02	8.013E+09					
67	2.412E+01	2.326E-02	-2.043E-03	5.226E+05	-8.110E+03	-5.554E+01
-1.788E+02	8.013E+09					
68	2.448E+01	1.505E-02	-1.771E-03	4.872E+05	-8.258E+03	-4.083E+01
-1.153E+02	8.013E+09					
69	2.484E+01	7.966E-03	-1.518E-03	4.512E+05	-8.337E+03	-2.421E+01
-4.350E+01	8.013E+09					
70	2.520E+01	1.934E-03	-1.284E-03	4.151E+05	-8.342E+03	-6.510E+00
3.296E+01	8.013E+09					
71	2.556E+01	-3.130E-03	-1.070E-03	3.792E+05	-8.261E+03	1.575E+01
1.291E+02	8.013E+09					
72	2.592E+01	-7.311E-03	-8.752E-04	3.438E+05	-8.086E+03	3.696E+01
2.208E+02	8.013E+09					
73	2.628E+01	-1.069E-02	-6.992E-04	3.093E+05	-7.828E+03	5.428E+01
2.956E+02	8.013E+09					
74	2.664E+01	-1.335E-02	-5.414E-04	2.761E+05	-7.503E+03	6.808E+01
3.552E+02	8.013E+09					
75	2.700E+01	-1.537E-02	-4.010E-04	2.445E+05	-7.125E+03	7.870E+01
4.011E+02	8.013E+09					
76	2.736E+01	-1.682E-02	-2.773E-04	2.146E+05	-6.707E+03	8.648E+01
4.347E+02	8.013E+09					
77	2.772E+01	-1.776E-02	-1.691E-04	1.865E+05	-6.261E+03	9.174E+01
4.574E+02	8.013E+09					
78	2.808E+01	-1.828E-02	-7.560E-05	1.605E+05	-5.797E+03	9.479E+01
4.706E+02	8.013E+09					
79	2.844E+01	-1.842E-02	4.440E-06	1.365E+05	-5.324E+03	9.591E+01
4.754E+02	8.013E+09					
80	2.880E+01	-1.824E-02	7.208E-05	1.145E+05	-4.849E+03	9.538E+01
4.731E+02	8.013E+09					
81	2.916E+01	-1.780E-02	1.284E-04	9.455E+04	-4.380E+03	9.343E+01
4.647E+02	8.013E+09					
82	2.952E+01	-1.713E-02	1.746E-04	7.663E+04	-3.922E+03	9.031E+01
4.512E+02	8.013E+09					
83	2.988E+01	-1.629E-02	2.116E-04	6.066E+04	-3.480E+03	8.621E+01
4.335E+02	8.013E+09					
84	3.024E+01	-1.530E-02	2.405E-04	4.657E+04	-3.057E+03	8.133E+01

4.124E+02	8.013E+09					
85	3.060E+01	-1.421E-02	2.623E-04	3.425E+04	-2.657E+03	7.582E+01
3.886E+02	8.013E+09					
86	3.096E+01	-1.304E-02	2.779E-04	2.361E+04	-2.281E+03	6.985E+01
3.628E+02	8.013E+09					
87	3.132E+01	-1.181E-02	2.882E-04	1.454E+04	-1.932E+03	6.353E+01
3.355E+02	8.013E+09					
88	3.168E+01	-1.055E-02	2.940E-04	6.922E+03	-1.610E+03	5.697E+01
3.072E+02	8.013E+09					
89	3.204E+01	-9.268E-03	2.960E-04	6.293E+02	-1.318E+03	5.027E+01
2.782E+02	8.013E+09					
90	3.240E+01	-7.989E-03	2.950E-04	-4.462E+03	-1.054E+03	4.350E+01
2.490E+02	8.013E+09					
91	3.276E+01	-6.720E-03	2.915E-04	-8.477E+03	-8.196E+02	3.674E+01
2.198E+02	8.013E+09					
92	3.312E+01	-5.471E-03	2.861E-04	-1.154E+04	-6.143E+02	3.003E+01
1.908E+02	8.013E+09					
93	3.348E+01	-4.248E-03	2.792E-04	-1.378E+04	-3.341E+02	7.142E+01
3.696E+02	8.013E+09					
94	3.384E+01	-3.058E-03	2.716E-04	-1.443E+04	6.709E+01	8.603E+01
4.327E+02	8.013E+09					
95	3.420E+01	-1.902E-03	2.642E-04	-1.321E+04	4.298E+02	5.359E+01
2.926E+02	8.013E+09					
96	3.456E+01	-7.756E-04	2.577E-04	-1.072E+04	6.539E+02	2.190E+01
1.557E+02	8.013E+09					
97	3.492E+01	3.253E-04	2.528E-04	-7.555E+03	7.448E+02	-8.111E+00
2.604E+01	8.013E+09					
98	3.528E+01	1.409E-03	2.496E-04	-4.282E+03	7.122E+02	-3.522E+01
-9.108E+01	8.013E+09					
99	3.564E+01	2.482E-03	2.481E-04	-1.402E+03	4.956E+02	-9.336E+01
-3.422E+02	8.013E+09					
100	3.600E+01	3.552E-03	2.477E-04	0.000E+00	1.622E+02	-8.925E+01
-3.245E+02	8.013E+09					

END OF ANALYSIS



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PYWALL for Windows, Version 2022.7.5

Serial Number : 447597562

A Program for the Analysis of  
Flexible Retaining Walls  
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Path to file locations : J:\20230339\ODOT\07\_D11 Bridge  
St\_Bowerston\120494\400-Engineering\Structures\SFN\_3431790\EngData\17\_Temp  
Shoring\PYWALL - Updated 02-19-2025 - Check 1\  
Name of input data file : Temp Shoring\_SW WW.py7d  
Name of output file : Temp Shoring\_SW WW.py7o  
Name of plot output file : Temp Shoring\_SW WW.py7p

-----  
Time and Date of Analysis  
-----

Date: February 21, 2025 Time: 09:33:51

New Wall

\*\*\*\*\*  
\* PROGRAM CONTROL PARAMETERS \*  
\*\*\*\*\*

NO OF POINTS FOR SPECIFIED DEFLECTIONS AND SLOPES	=	0
NO OF WALL SECTIONS	=	1
NO OF CROSS SECTIONS	=	1
GENERATE EARTH PRESSURE INTERNALLY	=	1
GENERATE SOIL RESISTANCE (P-Y) CURVES INTERNALLY	=	1
NO OF P-Y MODIFICATION FACTORS FOR GEN. P-Y CURVES	=	0
NO OF USER-SPECIFIED SOIL RESISTANCE (P-Y) CURVES	=	0
NO OF TIE BACKS	=	0
NO OF STRUTS/RAKERS	=	0

HEIGHT OF WALL	=	36.000 FT
NUMBER OF INCREMENTS	=	100
INCREMENT LENGTH	=	4.320 IN
MAXIMUM ALLOWABLE DEFLECTION	=	100.000 IN
DEFLECTION CLOSURE TOLERANCE	=	1.000E-05 IN
MAXIMUM NUMBER OF ITERATIONS	=	100

\* WALL SECTIONS \*

SECT	TOP FT	BOTTOM FT	SECTION
1	0.00000	36.0000	1

\* CROSS SECTIONS \*

CROSS SECTION : 1  
 SECTION NAME : PZ  
 TYPE : ELASTIC  
 CROSS SECTION TYPE : SHEET PILING  
 SOURCE : USS  
 SECTION NAME : 1  
 WIDTH : 18.0000 IN  
 DEPTH : 12.0000 IN  
 WEB THICKNESS : 0.37500 IN  
 YOUNG MODULUS : 2.90000E+07 LBS/IN\*\*2

\* CROSS SECTIONS PROPERTIES \*

ELASTIC SECTIONS

SECT	DIAM, IN	I, IN**4
1	18.0000	276.300

\*\*\*\*\*

\* STIFFNESS AND LOAD DATA \*

\*\*\*\*\*

EI - FLEXURAL RIGIDITY, Q - TRANSVERSE LOAD,  
 S - STIFFNESS OF TRANSVERSE RESISTANCE,  
 T - TORQUE, P - AXIAL LOAD,  
 R - STIFFNESS OF TORSIONAL RESISTANCE.

FROM	TO	CONTD	EI	Q	S	T	R	P
			LBS-IN**2	LBS	LBS/IN	IN-LBS	IN-LBS	LBS
0	1		8.013E+09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
100	0		8.013E+09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

\*\*\*\*\*  
 \* WALL INFORMATION \*  
 \*\*\*\*\*

FREE HEIGHT OF WALL = 1.072E+01 FT  
 WIDTH FOR EARTH PRESSURE, WA = 1.800E+01 IN  
 WIDTH FOR SOIL RESISTANCE, WP = 1.800E+01 IN  
 DEPTH TO THE WATER TABLE AT BACKFILL = 6.800E+00 FT  
 DEPTH TO THE WATER TABLE AT EXCAVATION = 1.072E+01 FT  
 UNIT WEIGHT OF WATER = 3.600E-02 LBS/IN\*\*3  
 SLOPE OF THE BACKFILL (deg.) = 0.000E+00  
 SLOPE OF THE EXCAVATION GROUND (deg.) = 0.000E+00  
 MODIFICATION FOR ACTIVE EARTH PRESSURE = 1.500E+00

\*\*\*\*\*  
 \* SURCHARGE INFORMATION \*  
 \*\*\*\*\*

UNIFORM SURFACE PRESSURE = 0.000E+00 LBS/IN\*\*2

\*\*\*\*\*  
 \* SOIL INFORMATION \*  
 \*\*\*\*\*

LAYER NO.	TOTAL	COHESION/	TOTAL UNIT			
	THICKNESS	STRENGTH	PHI	WEIGHT	DRAINED	ZTOP
	FT	PSI	DEG	PCI	T OR F	FT
1	6.8	5.2	0.0	0.072	T	0.00
2	3.2	5.2	0.0	0.072	T	6.80
3	0.7	0.0	28.0	0.064	T	10.02
4	6.6	0.0	28.0	0.064	T	10.72
5	4.5	5.2	0.0	0.072	T	17.30
6	10.0	10.4	0.0	0.073	T	21.80
7	16.5	31.2	0.0	0.076	T	31.80

\*\*\*\*\*  
 \* EFFECTIVE OVERBURDEN STRESS \*  
 \*\*\*\*\*

DEPTH FT	STRESS LBS/IN**2
0.000E+00	0.000E+00
6.800E+00	5.856E+00
1.002E+01	7.237E+00
1.072E+01	7.470E+00
1.730E+01	9.653E+00
2.180E+01	1.158E+01
3.180E+01	1.601E+01

\*\*\*\*\*  
 \* ACTIVE AND PASSIVE EARTH PRESSURE COEFFICIENT \*  
 \*\*\*\*\*

LAYER NO.	ACTIVE EARTH COEFFICIENT	PASSIVE EARTH(*) COEFFICIENT	OPTIONAL EARTH(**) COEFFICIENT
1	1.000E+00	1.000E+00	4.217E-01
2	1.000E+00	1.000E+00	4.217E-01
3	3.610E-01	2.770E+00	4.217E-01
4	3.610E-01	2.770E+00	1.000E-06
5	1.000E+00	1.000E+00	1.000E-04
6	1.000E+00	1.000E+00	1.000E-04
7	1.000E+00	1.000E+00	1.000E-04

NOTES:

- (\*) PASSIVE EARTH COEFFICIENT IS PRINTED ONLY FOR REFERENCE,  
 IT IS NOT USED FOR ANALYSIS
- (\*\*) OPTIONAL EARTH COEFFICIENT IS USED TO ESTIMATE ACTIVE PRESSURE  
 IF IT IS DIFFERENT THAN ZERO

\*\*\*\*\*  
 \* ACTIVE EARTH PRESSURE OF EACH LAYER \*  
 \*\*\*\*\*

LAYER NO	PA1 LBS/IN	Z1 FT	PA2 LBS/IN	Z2 FT	PA3 LBS/IN	Z3 FT	PA4 LBS/IN
1	0.00	3.40	151.13	4.53	0.00	-0.00	0.00
2	143.13	8.41	16.89	8.95	0.00	-0.00	0.00
3	38.46	10.37	0.62	10.49	0.00	-0.00	0.00

\*\*\*\*\*  
 \* ACTIVE WATER PRESSURE OF EACH LAYER \*  
 \*\*\*\*\*

LAYER NO	PW1 LBS/IN	Z1 FT	PW2 LBS/IN	Z2 FT
2	0.00	8.41	40.31	8.95
3	17.53	10.37	1.91	10.49

\* GENERATED TRIANGULAR-DISTRIBUTION EARTH PRESSURE

DEPTH FT	ACTIVE EARTH PRESSURE LBS/IN
-----	-----
0.00000E+00	0.00000E+00
4.97558E-01	4.87872E+00
9.95083E-01	9.75744E+00
1.49267E+00	1.46362E+01
1.99025E+00	1.95156E+01
2.48783E+00	2.43936E+01
2.98533E+00	2.92716E+01
3.48292E+00	3.41514E+01
3.98050E+00	3.90294E+01
4.47808E+00	4.39074E+01
4.97558E+00	4.87872E+01
5.47317E+00	5.36652E+01
5.97075E+00	5.85450E+01
6.46833E+00	6.34230E+01
6.96517E+00	6.94080E+01
7.46050E+00	7.76070E+01
7.95592E+00	8.58060E+01
8.45167E+00	9.40050E+01
8.94667E+00	1.02204E+02
9.44167E+00	1.10401E+02
9.93750E+00	1.18600E+02
1.04575E+01	1.26724E+02
1.09700E+01	4.57236E+01
1.14700E+01	4.57236E+01
1.19692E+01	4.57236E+01
1.24692E+01	4.57236E+01
1.29692E+01	4.57236E+01
1.34683E+01	4.57236E+01
1.39683E+01	4.57236E+01
1.44683E+01	4.57236E+01
1.49675E+01	4.57236E+01
1.54675E+01	4.57236E+01
1.59675E+01	4.57236E+01
1.64675E+01	4.57236E+01
1.69667E+01	4.57236E+01
1.74667E+01	4.57434E+01
1.79667E+01	4.57434E+01

1.84667E+01	4.57434E+01
1.89667E+01	4.57434E+01
1.94667E+01	4.57434E+01
1.99667E+01	4.57434E+01
2.04667E+01	4.57434E+01
2.09667E+01	4.57434E+01
2.14667E+01	4.57434E+01
2.19667E+01	4.57434E+01
2.24667E+01	4.57434E+01
2.29667E+01	4.57434E+01
2.34667E+01	4.57434E+01
2.39667E+01	4.57434E+01
2.44667E+01	4.57434E+01
2.49667E+01	4.57434E+01
2.54667E+01	4.57434E+01
2.59667E+01	4.57434E+01
2.64667E+01	4.57434E+01
2.69667E+01	4.57434E+01
2.74667E+01	4.57434E+01
2.79667E+01	4.57434E+01
2.84667E+01	4.57434E+01
2.89667E+01	4.57434E+01
2.94667E+01	4.57434E+01
2.99667E+01	4.57434E+01
3.04667E+01	4.57434E+01
3.09667E+01	4.57434E+01
3.14667E+01	4.57434E+01
3.19667E+01	4.57434E+01
3.24667E+01	4.57434E+01
3.29667E+01	4.57434E+01
3.34667E+01	4.57434E+01
3.39667E+01	4.57434E+01
3.44667E+01	4.57434E+01
3.49667E+01	4.57434E+01
3.54667E+01	4.57434E+01
3.59667E+01	4.57434E+01

\*\*\*\*\*  
 \* SOIL LAYERS AND STRENGTH DATA \*  
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X AT THE SURFACE OF EXCAVATION SIDE = 10.72 FT

4 LAYER(S) OF SOIL

LAYER 1  
 THE SOIL IS A SAND

LAYER 2  
THE SOIL IS A STIFF CLAY WITH FREE WATER

LAYER 3  
THE SOIL IS A STIFF CLAY WITH FREE WATER

LAYER 4  
THE SOIL IS A STIFF CLAY WITH FREE WATER

# DISTRIBUTION OF EFFECTIVE UNIT WEIGHT WITH DEPTH 8 POINTS

X, FT	WEIGHT, LBS/IN**3
10.7200	2.7657E-02
17.3000	2.7657E-02
17.3000	3.5759E-02
21.8000	3.5759E-02
21.8000	3.6917E-02
31.8000	3.6917E-02
31.8000	3.9810E-02
48.3000	3.9810E-02

# DISTRIBUTION OF STRENGTH PARAMETERS WITH DEPTH 8 POINTS

X, FT	C, LBS/IN**2	PHI, DEGREE	E50	KPY, LBS/IN**3
10.72	0.0000E+00	28.000	0.0000E+00	2.0000E+01
17.30	0.0000E+00	28.000	0.0000E+00	2.0000E+01
17.30	5.2083E+00	0.000	1.5000E-02	8.0000E+01
21.80	5.2083E+00	0.000	1.5000E-02	8.0000E+01
21.80	1.0417E+01	0.000	1.0000E-02	3.5000E+02
31.80	1.0417E+01	0.000	1.0000E-02	3.5000E+02
31.80	3.1250E+01	0.000	4.0000E-03	1.5000E+03
36.72	3.1250E+01	0.000	4.0000E-03	1.5000E+03

## P-Y CURVES DATA

AT THE EXCAVATION SIDE

DEPTH BELOW GS FT	DIAM IN	PHI	GAMMA AVG LBS/IN**3	KPY LBS/IN**3	A	B	PC LB /IN
0.01	18.00	28.00	2.77E-02	2.00E+01	2.82	2.13	2.15E-01

Y

P

IN	LBS/IN
0.000	0.000
0.010	0.020
0.020	0.040
0.038	0.076
0.056	0.112
0.074	0.148
0.092	0.184
0.110	0.220
0.128	0.256
0.146	0.292
0.164	0.328
0.182	0.364
0.200	0.400
0.283	0.509
0.367	0.559
0.450	0.608
0.540	0.608

P-Multiplier = 1.000E+00 Y-Multiplier = 1.000E+00

AT THE BACKFILL SIDE

DEPTH BELOW GS	DIAM	PHI	GAMMA AVG	KPY	A	B	PC
FT	IN		LBS/IN**3	LBS/IN**3			LB /IN
10.73	18.00	28.00	5.80E-02	2.00E+01	0.88	0.50	5.82E+02

Y	P
IN	LBS/IN
0.000	0.000
0.010	25.748
0.020	51.496
0.038	97.842
0.056	134.145
0.074	158.917
0.092	181.410
0.110	202.229
0.128	221.749
0.146	240.217
0.164	257.812
0.182	274.663
0.200	290.873
0.283	364.561
0.367	438.249
0.450	511.937
0.540	511.937

P-Multiplier = 1.000E+00 Y-Multiplier = 1.000E+00



AT THE EXCAVATION SIDE

DEPTH BELOW GS	DIAM	PHI	GAMMA AVG	KPY	A	B	PC
FT	IN		LBS/IN**3	LBS/IN**3			LB /IN
1.65	18.00	28.00	2.77E-02	2.00E+01	1.68	1.21	4.25E+01

Y	P
IN	LBS/IN
0.000	0.000
0.010	3.948
0.020	7.896
0.038	15.002
0.056	22.109
0.074	29.215
0.092	36.322
0.110	42.508
0.128	44.576
0.146	46.453
0.164	48.177
0.182	49.775
0.200	51.269
0.283	57.965
0.367	64.660
0.450	71.356
0.540	71.356

P-Multiplier = 1.000E+00 Y-Multiplier = 1.000E+00

AT THE BACKFILL SIDE

DEPTH BELOW GS	DIAM	PHI	GAMMA AVG	KPY	A	B	PC
FT	IN		LBS/IN**3	LBS/IN**3			LB /IN
12.37	18.00	28.00	5.40E-02	2.00E+01	0.88	0.50	6.24E+02

Y	P
IN	LBS/IN
0.000	0.000
0.019	57.546
0.039	115.092
0.055	142.179
0.071	166.271
0.087	188.291
0.103	208.761
0.119	228.009
0.136	246.262

0.152	263.681
0.168	280.387
0.184	296.474
0.200	312.018
0.283	391.062
0.367	470.106
0.450	549.151
0.540	549.151

P-Multiplier = 1.000E+00 Y-Multiplier = 1.000E+00

#### AT THE EXCAVATION SIDE

DEPTH BELOW GS FT	DIAM IN	PHI	GAMMA AVG LBS/IN**3	KPY LBS/IN**3	A	B	PC LB /IN
3.29	18.00	28.00	2.77E-02	2.00E+01	1.01	0.66	8.50E+01

Y IN	P LBS/IN
0.000	0.000
0.016	12.665
0.032	25.330
0.049	30.391
0.066	34.534
0.082	38.110
0.099	41.293
0.116	44.183
0.133	46.844
0.150	49.320
0.166	51.643
0.183	53.836
0.200	55.919
0.283	66.001
0.367	76.083
0.450	86.165
0.540	86.165

P-Multiplier = 1.000E+00 Y-Multiplier = 1.000E+00

#### AT THE BACKFILL SIDE

DEPTH BELOW GS FT	DIAM IN	PHI	GAMMA AVG LBS/IN**3	KPY LBS/IN**3	A	B	PC LB /IN
14.01	18.00	28.00	5.09E-02	2.00E+01	0.88	0.50	6.67E+02

Y	P
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IN	LBS/IN
0.000	0.000
0.017	56.090
0.033	112.180
0.050	143.511
0.067	170.923
0.083	195.746
0.100	218.684
0.117	240.163
0.133	260.469
0.150	279.801
0.167	298.307
0.183	316.100
0.200	333.270
0.283	417.698
0.367	502.126
0.450	586.555
0.540	586.555

P-Multiplier = 1.000E+00 Y-Multiplier = 1.000E+00

#### AT THE EXCAVATION SIDE

DEPTH BELOW GS	DIAM	PHI	GAMMA AVG	KPY	A	B	PC
FT	IN		LBS/IN**3	LBS/IN**3			LB /IN
4.94	18.00	28.00	2.77E-02	2.00E+01	0.88	0.50	1.28E+02

Y	P
IN	LBS/IN
0.000	0.000
0.004	4.327
0.007	8.654
0.027	18.891
0.046	26.268
0.065	32.476
0.084	37.986
0.104	43.016
0.123	47.687
0.142	52.076
0.161	56.235
0.181	60.202
0.200	64.005
0.283	80.129
0.367	96.253
0.450	112.377
0.540	112.377

P-Multiplier = 1.000E+00 Y-Multiplier = 1.000E+00

AT THE BACKFILL SIDE

DEPTH BELOW GS	DIAM	PHI	GAMMA AVG	KPY	A	B	PC
FT	IN		LBS/IN**3	LBS/IN**3			LB /IN
15.65	18.00	28.00	4.85E-02	2.00E+01	0.88	0.50	7.09E+02

Y	P
IN	LBS/IN
0.000	0.000
0.015	55.283
0.029	110.566
0.046	145.997
0.064	176.554
0.081	204.017
0.098	229.274
0.115	252.850
0.132	275.085
0.149	296.217
0.166	316.417
0.183	335.818
0.200	354.522
0.283	444.334
0.367	534.146
0.450	623.958
0.540	623.958

P-Multiplier = 1.000E+00 Y-Multiplier = 1.000E+00

AT THE EXCAVATION SIDE

DEPTH BELOW GS	DIAM	PHI	GAMMA AVG	KPY	A	B	PC
FT	IN		LBS/IN**3	LBS/IN**3			LB /IN
6.57	18.00	28.00	2.77E-02	2.00E+01	0.88	0.50	1.70E+02

Y	P
IN	LBS/IN
0.000	0.000
0.004	5.544
0.007	11.087
0.026	24.745
0.046	34.568
0.065	42.837
0.084	50.180
0.104	56.886
0.123	63.117

0.142	68.973
0.161	74.525
0.181	79.822
0.200	84.901
0.283	106.409
0.367	127.917
0.450	149.426
0.540	149.426

P-Multiplier = 1.000E+00 Y-Multiplier = 1.000E+00

AT THE BACKFILL SIDE

DEPTH BELOW GS FT	DIAM IN	PHI	GAMMA AVG LBS/IN**3	KPY LBS/IN**3	A	B	PC LB /IN
17.29	18.00	28.00	4.65E-02	2.00E+01	0.88	0.50	7.51E+02

Y IN	P LBS/IN
0.000	0.000
0.013	54.928
0.026	109.856
0.044	149.258
0.061	182.819
0.079	212.793
0.096	240.256
0.113	265.826
0.131	289.899
0.148	312.745
0.165	334.562
0.183	355.498
0.200	375.666
0.283	470.835
0.367	566.004
0.450	661.173
0.540	661.173

P-Multiplier = 1.000E+00 Y-Multiplier = 1.000E+00

AT THE EXCAVATION SIDE

	DEPTH BELOW GS FT	DIAM IN	C LBS/IN**2	CAVG LBS/IN**2	GAMMA AVG LBS/IN**3	E50
KPY LBS/IN**3	6.59	18.000	5.21E+00	5.21E+00	2.77E-02	1.5000E-02

8.00000E+01

Y	P
IN	LBS/IN
0.000	0.000
0.054	62.132
0.108	87.868
0.162	102.369
0.216	111.786
0.270	118.217
0.324	122.513
0.378	125.160
0.432	126.469
0.486	126.660
0.540	125.892
0.594	124.285
0.648	121.936
1.080	87.955
1.512	53.924
1.944	19.893
16.200	19.893

P-Multiplier = 1.000E+00 Y-Multiplier = 1.000E+00

AT THE BACKFILL SIDE

KPY	DEPTH BELOW GS	DIAM	C	CAVG	GAMMA AVG	E50
	FT	IN	LBS/IN**2	LBS/IN**2	LBS/IN**3	
LBS/IN**3	17.31	18.000	5.21E+00	5.21E+00	4.65E-02	1.5000E-02
8.00000E+01						

Y	P
IN	LBS/IN
0.000	0.000
0.054	98.953
0.108	139.941
0.162	163.037
0.216	178.034
0.270	188.277
0.324	195.119
0.378	199.334
0.432	201.419
0.486	201.723
0.540	200.499
0.594	197.941
0.648	194.199

1.080	140.080
1.512	85.881
1.944	31.682
16.200	31.682

P-Multiplier = 1.000E+00 Y-Multiplier = 1.000E+00

#### AT THE EXCAVATION SIDE

KPY	DEPTH BELOW GS	DIAM	C	CAVG	GAMMA AVG	E50
	FT	IN	LBS/IN**2	LBS/IN**2	LBS/IN**3	
LBS/IN**3	7.71	18.000	5.21E+00	5.21E+00	2.88E-02	1.5000E-02
8.00000E+01						

Y	P
IN	LBS/IN
0.000	0.000
0.054	64.494
0.108	91.208
0.162	106.261
0.216	116.035
0.270	122.711
0.324	127.171
0.378	129.918
0.432	131.277
0.486	131.475
0.540	130.678
0.594	129.010
0.648	126.572
1.080	91.299
1.512	55.974
1.944	20.649
16.200	20.649

P-Multiplier = 1.000E+00 Y-Multiplier = 1.000E+00

#### AT THE BACKFILL SIDE

KPY	DEPTH BELOW GS	DIAM	C	CAVG	GAMMA AVG	E50
	FT	IN	LBS/IN**2	LBS/IN**2	LBS/IN**3	
LBS/IN**3	18.43	18.000	5.21E+00	5.70E+00	4.58E-02	1.5000E-02
8.00000E+01						

Y	P
IN	LBS/IN
0.000	0.000
0.054	101.315
0.108	143.282
0.162	166.928
0.216	182.283
0.270	192.771
0.324	199.777
0.378	204.092
0.432	206.227
0.486	206.539
0.540	205.286
0.594	202.666
0.648	198.835
1.080	143.424
1.512	87.931
1.944	32.439
16.200	32.439

P-Multiplier = 1.000E+00 Y-Multiplier = 1.000E+00

#### AT THE EXCAVATION SIDE

KPY	DEPTH BELOW GS	DIAM	C	CAVG	GAMMA AVG	E50
	FT	IN	LBS/IN**2	LBS/IN**2	LBS/IN**3	
LBS/IN**3	8.83	18.000	5.21E+00	3.27E+01	2.97E-02	1.5000E-02
8.00000E+01						

Y	P
IN	LBS/IN
0.000	0.000
0.054	66.874
0.108	94.574
0.162	110.182
0.216	120.317
0.270	127.239
0.324	131.863
0.378	134.712
0.432	136.121
0.486	136.327
0.540	135.499
0.594	133.770
0.648	131.242
1.080	94.668



1.512	58.039
1.944	21.411
16.200	21.411

P-Multiplier = 1.000E+00 Y-Multiplier = 1.000E+00

#### AT THE BACKFILL SIDE

KPY	DEPTH BELOW GS	DIAM	C	CAVG	GAMMA AVG	E50
	FT	IN	LBS/IN**2	LBS/IN**2	LBS/IN**3	
LBS/IN**3	19.55	18.000	5.21E+00	1.04E+01	4.53E-02	1.5000E-02
8.00000E+01						

Y	P
IN	LBS/IN
0.000	0.000
0.054	103.695
0.108	146.647
0.162	170.849
0.216	186.565
0.270	197.299
0.324	204.469
0.378	208.886
0.432	211.071
0.486	211.390
0.540	210.107
0.594	207.426
0.648	203.505
1.080	146.793
1.512	89.997
1.944	33.200
16.200	33.200

P-Multiplier = 1.000E+00 Y-Multiplier = 1.000E+00

#### AT THE EXCAVATION SIDE

KPY	DEPTH BELOW GS	DIAM	C	CAVG	GAMMA AVG	E50
	FT	IN	LBS/IN**2	LBS/IN**2	LBS/IN**3	
LBS/IN**3	9.96	18.000	5.21E+00	4.18E+01	3.04E-02	1.5000E-02
8.00000E+01						

Y	P
IN	LBS/IN
0.000	0.000
0.054	69.253
0.108	97.939
0.162	114.103
0.216	124.598
0.270	131.767
0.324	136.556
0.378	139.505
0.432	140.965
0.486	141.178
0.540	140.321
0.594	138.531
0.648	135.912
1.080	98.036
1.512	60.105
1.944	22.173
16.200	22.173

P-Multiplier = 1.000E+00 Y-Multiplier = 1.000E+00

AT THE BACKFILL SIDE

KPY	DEPTH BELOW GS	DIAM	C	CAVG	GAMMA AVG	E50
	FT	IN	LBS/IN**2	LBS/IN**2	LBS/IN**3	
LBS/IN**3	20.68	18.000	5.21E+00	1.44E+01	4.47E-02	1.5000E-02
8.00000E+01						

Y	P
IN	LBS/IN
0.000	0.000
0.054	106.075
0.108	150.012
0.162	174.770
0.216	190.846
0.270	201.827
0.324	209.161
0.378	213.679
0.432	215.915
0.486	216.241
0.540	214.929
0.594	212.186
0.648	208.176
1.080	150.162
1.512	92.062

1.944	33.962
16.200	33.962

P-Multiplier = 1.000E+00 Y-Multiplier = 1.000E+00

# AT THE EXCAVATION SIDE

KPY	DEPTH BELOW GS	DIAM	C	CAVG	GAMMA AVG	E50
	FT	IN	LBS/IN**2	LBS/IN**2	LBS/IN**3	
LBS/IN**3	11.07	18.000	5.21E+00	4.65E+01	3.09E-02	1.5000E-02
8.00000E+01						

Y	P
IN	LBS/IN
0.000	0.000
0.054	71.615
0.108	101.280
0.162	117.994
0.216	128.848
0.270	136.261
0.324	141.213
0.378	144.264
0.432	145.773
0.486	145.993
0.540	145.107
0.594	143.256
0.648	140.548
1.080	101.380
1.512	62.155
1.944	22.929
16.200	22.929

P-Multiplier = 1.000E+00 Y-Multiplier = 1.000E+00

# AT THE BACKFILL SIDE

KPY	DEPTH BELOW GS	DIAM	C	CAVG	GAMMA AVG	E50
	FT	IN	LBS/IN**2	LBS/IN**2	LBS/IN**3	
LBS/IN**3	21.79	18.000	5.21E+00	1.78E+01	4.43E-02	1.5000E-02
8.00000E+01						

Y	P
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IN	LBS/IN
0.000	0.000
0.054	108.437
0.108	153.353
0.162	178.662
0.216	195.096
0.270	206.321
0.324	213.819
0.378	218.438
0.432	220.723
0.486	221.056
0.540	219.715
0.594	216.911
0.648	212.811
1.080	153.505
1.512	94.112
1.944	34.719
16.200	34.719

P-Multiplier = 1.000E+00 Y-Multiplier = 1.000E+00

#### AT THE EXCAVATION SIDE

KPY	DEPTH BELOW GS	DIAM	C	CAVG	GAMMA AVG	E50
	FT	IN	LBS/IN**2	LBS/IN**2	LBS/IN**3	
LBS/IN**3	11.09	18.000	1.04E+01	1.04E+01	3.10E-02	1.0000E-02
3.50000E+02						

Y	P
IN	LBS/IN
0.000	0.000
0.036	123.000
0.072	173.949
0.108	202.657
0.144	221.298
0.180	234.030
0.216	242.535
0.252	247.774
0.288	250.367
0.324	250.745
0.360	249.223
0.396	246.043
0.432	241.392
0.720	174.122
1.008	106.752
1.296	39.381

10.800 39.381

P-Multiplier = 1.000E+00 Y-Multiplier = 1.000E+00

AT THE BACKFILL SIDE

KPY	DEPTH BELOW GS	DIAM	C	CAVG	GAMMA AVG	E50
	FT	IN	LBS/IN**2	LBS/IN**2	LBS/IN**3	
LBS/IN**3	21.81	18.000	1.04E+01	1.04E+01	4.43E-02	1.0000E-02
3.50000E+02						

Y	P
IN	LBS/IN
0.000	0.000
0.036	159.822
0.072	226.022
0.108	263.324
0.144	287.546
0.180	304.090
0.216	315.141
0.252	321.948
0.288	325.317
0.324	325.808
0.360	323.831
0.396	319.699
0.432	313.656
0.720	226.247
1.008	138.709
1.296	51.171
10.800	51.171

P-Multiplier = 1.000E+00 Y-Multiplier = 1.000E+00

AT THE EXCAVATION SIDE

KPY	DEPTH BELOW GS	DIAM	C	CAVG	GAMMA AVG	E50
	FT	IN	LBS/IN**2	LBS/IN**2	LBS/IN**3	
LBS/IN**3	13.58	18.000	1.04E+01	1.04E+01	3.20E-02	1.0000E-02
3.50000E+02						

Y	P
IN	LBS/IN

0.000	0.000
0.036	128.441
0.072	181.644
0.108	211.622
0.144	231.088
0.180	244.383
0.216	253.265
0.252	258.735
0.288	261.443
0.324	261.837
0.360	260.248
0.396	256.927
0.432	252.071
0.720	181.824
1.008	111.474
1.296	41.124
10.800	41.124

P-Multiplier = 1.000E+00 Y-Multiplier = 1.000E+00

AT THE BACKFILL SIDE

KPY	DEPTH BELOW GS	DIAM	C	CAVG	GAMMA AVG	E50
	FT	IN	LBS/IN**2	LBS/IN**2	LBS/IN**3	
LBS/IN**3	24.30	18.000	1.04E+01	1.24E+01	4.35E-02	1.0000E-02
3.50000E+02						

Y	P
IN	LBS/IN
0.000	0.000
0.036	165.263
0.072	233.717
0.108	272.289
0.144	297.336
0.180	314.443
0.216	325.870
0.252	332.909
0.288	336.393
0.324	336.900
0.360	334.856
0.396	330.583
0.432	324.334
0.720	233.949
1.008	143.431
1.296	52.913
10.800	52.913

P-Multiplier = 1.000E+00 Y-Multiplier = 1.000E+00

AT THE EXCAVATION SIDE

KPY	DEPTH BELOW GS	DIAM	C	CAVG	GAMMA AVG	E50
	FT	IN	LBS/IN**2	LBS/IN**2	LBS/IN**3	
LBS/IN**3	16.08	18.000	1.04E+01	3.80E+01	3.28E-02	1.0000E-02
3.50000E+02						

Y	P
IN	LBS/IN
0.000	0.000
0.036	133.901
0.072	189.364
0.108	220.617
0.144	240.910
0.180	254.771
0.216	264.030
0.252	269.733
0.288	272.555
0.324	272.967
0.360	271.310
0.396	267.848
0.432	262.785
0.720	189.553
1.008	116.212
1.296	42.872
10.800	42.872

P-Multiplier = 1.000E+00 Y-Multiplier = 1.000E+00

AT THE BACKFILL SIDE

KPY	DEPTH BELOW GS	DIAM	C	CAVG	GAMMA AVG	E50
	FT	IN	LBS/IN**2	LBS/IN**2	LBS/IN**3	
LBS/IN**3	26.80	18.000	1.04E+01	2.08E+01	4.29E-02	1.0000E-02
3.50000E+02						

Y	P
IN	LBS/IN
0.000	0.000

0.036	170.722
0.072	241.438
0.108	281.284
0.144	307.158
0.180	324.831
0.216	336.635
0.252	343.907
0.288	347.505
0.324	348.030
0.360	345.918
0.396	341.504
0.432	335.049
0.720	241.678
1.008	148.169
1.296	54.661
10.800	54.661

P-Multiplier = 1.000E+00 Y-Multiplier = 1.000E+00

# AT THE EXCAVATION SIDE

KPY	DEPTH BELOW GS	DIAM	C	CAVG	GAMMA AVG	E50
	FT	IN	LBS/IN**2	LBS/IN**2	LBS/IN**3	
LBS/IN**3	18.58	18.000	1.04E+01	4.72E+01	3.34E-02	1.0000E-02
3.50000E+02						

Y	P
IN	LBS/IN
0.000	0.000
0.036	139.360
0.072	197.085
0.108	229.612
0.144	250.733
0.180	265.159
0.216	274.795
0.252	280.730
0.288	283.668
0.324	284.096
0.360	282.372
0.396	278.769
0.432	273.500
0.720	197.281
1.008	120.950
1.296	44.620
10.800	44.620



P-Multiplier = 1.000E+00 Y-Multiplier = 1.000E+00

AT THE BACKFILL SIDE

KPY	DEPTH BELOW GS	DIAM	C	CAVG	GAMMA AVG	E50
	FT	IN	LBS/IN**2	LBS/IN**2	LBS/IN**3	
LBS/IN**3	29.30	18.000	1.04E+01	2.70E+01	4.24E-02	1.0000E-02
3.50000E+02						

Y	P
IN	LBS/IN
0.000	0.000
0.036	176.182
0.072	249.159
0.108	290.279
0.144	316.981
0.180	335.218
0.216	347.400
0.252	354.904
0.288	358.618
0.324	359.159
0.360	356.980
0.396	352.425
0.432	345.763
0.720	249.406
1.008	152.908
1.296	56.409
10.800	56.409

P-Multiplier = 1.000E+00 Y-Multiplier = 1.000E+00

AT THE EXCAVATION SIDE

KPY	DEPTH BELOW GS	DIAM	C	CAVG	GAMMA AVG	E50
	FT	IN	LBS/IN**2	LBS/IN**2	LBS/IN**3	
LBS/IN**3	21.07	18.000	1.04E+01	5.18E+01	3.38E-02	1.0000E-02
3.50000E+02						

Y	P
IN	LBS/IN
0.000	0.000
0.036	144.802

0.072	204.780
0.108	238.577
0.144	260.522
0.180	275.511
0.216	285.524
0.252	291.691
0.288	294.743
0.324	295.188
0.360	293.397
0.396	289.653
0.432	284.178
0.720	204.984
1.008	125.673
1.296	46.362
10.800	46.362

P-Multiplier = 1.000E+00 Y-Multiplier = 1.000E+00

AT THE BACKFILL SIDE

KPY	DEPTH BELOW GS	DIAM	C	CAVG	GAMMA AVG	E50
	FT	IN	LBS/IN**2	LBS/IN**2	LBS/IN**3	
LBS/IN**3	31.79	18.000	1.04E+01	3.16E+01	4.20E-02	1.0000E-02
3.50000E+02						

Y	P
IN	LBS/IN
0.000	0.000
0.036	181.623
0.072	256.854
0.108	299.244
0.144	326.770
0.180	345.571
0.216	358.130
0.252	365.865
0.288	369.694
0.324	370.252
0.360	368.005
0.396	363.309
0.432	356.442
0.720	257.109
1.008	157.630
1.296	58.151
10.800	58.151

P-Multiplier = 1.000E+00 Y-Multiplier = 1.000E+00

AT THE EXCAVATION SIDE

KPY	DEPTH BELOW GS	DIAM	C	CAVG	GAMMA AVG	E50
	FT	IN	LBS/IN**2	LBS/IN**2	LBS/IN**3	
LBS/IN**3	21.09	18.000	3.12E+01	3.12E+01	3.38E-02	4.0000E-03
1.50000E+03						

Y	P
IN	LBS/IN
0.000	0.000
0.014	350.235
0.029	495.308
0.043	577.052
0.058	630.132
0.072	666.387
0.086	690.604
0.101	705.521
0.115	712.904
0.130	713.980
0.144	709.648
0.158	700.592
0.173	687.349
0.288	495.800
0.403	303.968
0.518	112.136
4.320	112.136

P-Multiplier = 1.000E+00 Y-Multiplier = 1.000E+00

AT THE BACKFILL SIDE

KPY	DEPTH BELOW GS	DIAM	C	CAVG	GAMMA AVG	E50
	FT	IN	LBS/IN**2	LBS/IN**2	LBS/IN**3	
LBS/IN**3	31.81	18.000	3.12E+01	3.12E+01	4.20E-02	4.0000E-03
1.50000E+03						

Y	P
IN	LBS/IN
0.000	0.000
0.014	387.057
0.029	547.381

0.043	637.719
0.058	696.380
0.072	736.446
0.086	763.210
0.101	779.695
0.115	787.854
0.130	789.043
0.144	784.256
0.158	774.248
0.173	759.613
0.288	547.925
0.403	335.925
0.518	123.926
4.320	123.926

P-Multiplier = 1.000E+00 Y-Multiplier = 1.000E+00

# AT THE EXCAVATION SIDE

KPY	DEPTH BELOW GS	DIAM	C	CAVG	GAMMA AVG	E50
	FT	IN	LBS/IN**2	LBS/IN**2	LBS/IN**3	
LBS/IN**3	22.31	18.000	3.12E+01	3.12E+01	3.41E-02	4.0000E-03
1.50000E+03						

Y	P
IN	LBS/IN
0.000	0.000
0.014	353.112
0.029	499.376
0.043	581.792
0.058	635.308
0.072	671.861
0.086	696.277
0.101	711.317
0.115	718.760
0.130	719.845
0.144	715.477
0.158	706.347
0.173	692.995
0.288	499.873
0.403	306.465
0.518	113.057
4.320	113.057

P-Multiplier = 1.000E+00 Y-Multiplier = 1.000E+00

AT THE BACKFILL SIDE

KPY	DEPTH BELOW GS	DIAM	C	CAVG	GAMMA AVG	E50
	FT	IN	LBS/IN**2	LBS/IN**2	LBS/IN**3	
LBS/IN**3	33.03	18.000	3.12E+01	3.44E+01	4.19E-02	4.0000E-03
1.50000E+03						

Y	P
IN	LBS/IN
0.000	0.000
0.014	389.934
0.029	551.450
0.043	642.459
0.058	701.557
0.072	741.920
0.086	768.883
0.101	785.491
0.115	793.710
0.130	794.908
0.144	790.085
0.158	780.003
0.173	765.259
0.288	551.998
0.403	338.422
0.518	124.847
4.320	124.847

P-Multiplier = 1.000E+00 Y-Multiplier = 1.000E+00

AT THE EXCAVATION SIDE

KPY	DEPTH BELOW GS	DIAM	C	CAVG	GAMMA AVG	E50
	FT	IN	LBS/IN**2	LBS/IN**2	LBS/IN**3	
LBS/IN**3	23.54	18.000	3.12E+01	1.83E+02	3.44E-02	4.0000E-03
1.50000E+03						

Y	P
IN	LBS/IN
0.000	0.000
0.014	356.009
0.029	503.473
0.043	586.564

0.058	640.520
0.072	677.372
0.086	701.989
0.101	717.151
0.115	724.656
0.130	725.749
0.144	721.346
0.158	712.141
0.173	698.680
0.288	503.973
0.403	308.979
0.518	113.985
4.320	113.985

P-Multiplier = 1.000E+00 Y-Multiplier = 1.000E+00

# AT THE BACKFILL SIDE

KPY	DEPTH BELOW GS	DIAM	C	CAVG	GAMMA AVG	E50
	FT	IN	LBS/IN**2	LBS/IN**2	LBS/IN**3	
LBS/IN**3	34.26	18.000	3.12E+01	6.25E+01	4.18E-02	4.0000E-03
1.50000E+03						

Y	P
IN	LBS/IN
0.000	0.000
0.014	392.830
0.029	555.546
0.043	647.232
0.058	706.768
0.072	747.432
0.086	774.594
0.101	791.325
0.115	799.606
0.130	800.813
0.144	795.954
0.158	785.797
0.173	770.943
0.288	556.098
0.403	340.936
0.518	125.774
4.320	125.774

P-Multiplier = 1.000E+00 Y-Multiplier = 1.000E+00

AT THE EXCAVATION SIDE

KPY	DEPTH BELOW GS	DIAM	C	CAVG	GAMMA AVG	E50
	FT	IN	LBS/IN**2	LBS/IN**2	LBS/IN**3	
LBS/IN**3	24.77	18.000	3.12E+01	2.34E+02	3.47E-02	4.0000E-03
1.50000E+03						

Y	P
IN	LBS/IN
0.000	0.000
0.014	358.905
0.029	507.569
0.043	591.337
0.058	645.731
0.072	682.883
0.086	707.700
0.101	722.986
0.115	730.552
0.130	731.654
0.144	727.215
0.158	717.935
0.173	704.364
0.288	508.073
0.403	311.493
0.518	114.912
4.320	114.912

P-Multiplier = 1.000E+00 Y-Multiplier = 1.000E+00

AT THE BACKFILL SIDE

KPY	DEPTH BELOW GS	DIAM	C	CAVG	GAMMA AVG	E50
	FT	IN	LBS/IN**2	LBS/IN**2	LBS/IN**3	
LBS/IN**3	35.49	18.000	3.12E+01	8.58E+01	4.17E-02	4.0000E-03
1.50000E+03						

Y	P
IN	LBS/IN
0.000	0.000
0.014	395.727
0.029	559.642
0.043	652.004
0.058	711.979

0.072	752.943
0.086	780.306
0.101	797.160
0.115	805.502
0.130	806.717
0.144	801.823
0.158	791.591
0.173	776.628
0.288	560.199
0.403	343.450
0.518	126.701
4.320	126.701

P-Multiplier = 1.000E+00 Y-Multiplier = 1.000E+00

#### AT THE EXCAVATION SIDE

KPY	DEPTH BELOW GS	DIAM	C	CAVG	GAMMA AVG	E50
	FT	IN	LBS/IN**2	LBS/IN**2	LBS/IN**3	
LBS/IN**3	25.99	18.000	3.12E+01	2.60E+02	3.49E-02	4.0000E-03
1.50000E+03						

Y	P
IN	LBS/IN
0.000	0.000
0.014	361.782
0.029	511.638
0.043	596.077
0.058	650.907
0.072	688.357
0.086	713.373
0.101	728.782
0.115	736.408
0.130	737.519
0.144	733.044
0.158	723.690
0.173	710.011
0.288	512.146
0.403	313.990
0.518	115.833
4.320	115.833

P-Multiplier = 1.000E+00 Y-Multiplier = 1.000E+00

#### AT THE BACKFILL SIDE



	DEPTH BELOW GS	DIAM	C	CAVG	GAMMA AVG	E50
KPY						
	FT	IN	LBS/IN**2	LBS/IN**2	LBS/IN**3	
LBS/IN**3	36.71	18.000	3.12E+01	1.05E+02	4.17E-02	4.0000E-03
1.50000E+03						

Y	P
IN	LBS/IN
0.000	0.000
0.014	398.604
0.029	563.711
0.043	656.744
0.058	717.155
0.072	758.417
0.086	785.979
0.101	802.956
0.115	811.358
0.130	812.582
0.144	807.652
0.158	797.346
0.173	782.274
0.288	564.271
0.403	345.947
0.518	127.623
4.320	127.623

P-Multiplier = 1.000E+00 Y-Multiplier = 1.000E+00

New Wall

# RESULTS

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NUMBER OF ITERATIONS : 9

\*\*\*\*\* ANALYSIS COMPLETED \*\*\*\*\*

STA I	X	DEFL.	SLOPE	MOMENT	SHEAR	SOIL_REACT
NET_FORCE/STA	EI					
	FT	IN	RAD	LBS-IN	LBS	LBS/IN
LBS	LBS-IN**2					
-----	-----	-----	-----	-----	-----	-----
0	0.000E+00	5.033E+00	-2.113E-02	-3.813E-07	0.000E+00	0.000E+00
8.827E-08	8.013E+09					
1	3.600E-01	4.941E+00	-2.113E-02	-3.813E-07	7.625E+00	0.000E+00
1.525E+01	8.013E+09					

2	7.200E-01	4.850E+00	-2.113E-02	6.588E+01	3.050E+01	0.000E+00
3.050E+01	8.013E+09					
3	1.080E+00	4.759E+00	-2.113E-02	2.635E+02	6.862E+01	0.000E+00
4.575E+01	8.013E+09					
4	1.440E+00	4.668E+00	-2.113E-02	6.588E+02	1.220E+02	0.000E+00
6.100E+01	8.013E+09					
5	1.800E+00	4.576E+00	-2.113E-02	1.318E+03	1.906E+02	0.000E+00
7.624E+01	8.013E+09					
6	2.160E+00	4.485E+00	-2.113E-02	2.306E+03	2.745E+02	0.000E+00
9.150E+01	8.013E+09					
7	2.520E+00	4.394E+00	-2.113E-02	3.689E+03	3.736E+02	0.000E+00
1.067E+02	8.013E+09					
8	2.880E+00	4.302E+00	-2.113E-02	5.534E+03	4.880E+02	0.000E+00
1.220E+02	8.013E+09					
9	3.240E+00	4.211E+00	-2.112E-02	7.905E+03	6.176E+02	0.000E+00
1.372E+02	8.013E+09					
10	3.600E+00	4.120E+00	-2.112E-02	1.087E+04	7.625E+02	0.000E+00
1.525E+02	8.013E+09					
11	3.960E+00	4.029E+00	-2.111E-02	1.449E+04	9.226E+02	0.000E+00
1.677E+02	8.013E+09					
12	4.320E+00	3.937E+00	-2.110E-02	1.884E+04	1.098E+03	0.000E+00
1.830E+02	8.013E+09					
13	4.680E+00	3.846E+00	-2.109E-02	2.398E+04	1.289E+03	0.000E+00
1.982E+02	8.013E+09					
14	5.040E+00	3.755E+00	-2.108E-02	2.997E+04	1.494E+03	0.000E+00
2.135E+02	8.013E+09					
15	5.400E+00	3.664E+00	-2.106E-02	3.689E+04	1.716E+03	0.000E+00
2.287E+02	8.013E+09					
16	5.760E+00	3.573E+00	-2.104E-02	4.480E+04	1.952E+03	0.000E+00
2.440E+02	8.013E+09					
17	6.120E+00	3.482E+00	-2.101E-02	5.375E+04	2.203E+03	0.000E+00
2.592E+02	8.013E+09					
18	6.480E+00	3.392E+00	-2.098E-02	6.383E+04	2.470E+03	0.000E+00
2.745E+02	8.013E+09					
19	6.840E+00	3.301E+00	-2.094E-02	7.510E+04	2.753E+03	0.000E+00
2.909E+02	8.013E+09					
20	7.200E+00	3.211E+00	-2.090E-02	8.762E+04	3.057E+03	0.000E+00
3.166E+02	8.013E+09					
21	7.560E+00	3.121E+00	-2.085E-02	1.015E+05	3.386E+03	0.000E+00
3.424E+02	8.013E+09					
22	7.920E+00	3.031E+00	-2.079E-02	1.169E+05	3.742E+03	0.000E+00
3.681E+02	8.013E+09					
23	8.280E+00	2.941E+00	-2.072E-02	1.338E+05	4.123E+03	0.000E+00
3.938E+02	8.013E+09					
24	8.640E+00	2.852E+00	-2.064E-02	1.525E+05	4.529E+03	0.000E+00
4.196E+02	8.013E+09					
25	9.000E+00	2.763E+00	-2.056E-02	1.730E+05	4.962E+03	0.000E+00
4.453E+02	8.013E+09					
26	9.360E+00	2.674E+00	-2.046E-02	1.954E+05	5.420E+03	0.000E+00
4.711E+02	8.013E+09					

27	9.720E+00	2.586E+00	-2.034E-02	2.198E+05	5.904E+03	0.000E+00
4.968E+02	8.013E+09					
28	1.008E+01	2.498E+00	-2.022E-02	2.464E+05	6.413E+03	0.000E+00
5.223E+02	8.013E+09					
29	1.044E+01	2.411E+00	-2.008E-02	2.752E+05	6.948E+03	0.000E+00
5.463E+02	8.013E+09					
30	1.080E+01	2.325E+00	-1.992E-02	3.064E+05	7.326E+03	-3.040E-01
2.109E+02	8.013E+09					
31	1.116E+01	2.239E+00	-1.975E-02	3.385E+05	7.491E+03	-1.830E+01
1.185E+02	8.013E+09					
32	1.152E+01	2.154E+00	-1.956E-02	3.711E+05	7.571E+03	-3.598E+01
4.207E+01	8.013E+09					
33	1.188E+01	2.070E+00	-1.935E-02	4.039E+05	7.575E+03	-5.367E+01
-3.434E+01	8.013E+09					
34	1.224E+01	1.987E+00	-1.912E-02	4.366E+05	7.503E+03	-7.136E+01
-1.107E+02	8.013E+09					
35	1.260E+01	1.905E+00	-1.888E-02	4.687E+05	7.385E+03	-7.432E+01
-1.235E+02	8.013E+09					
36	1.296E+01	1.824E+00	-1.861E-02	5.004E+05	7.255E+03	-7.728E+01
-1.363E+02	8.013E+09					
37	1.332E+01	1.744E+00	-1.834E-02	5.314E+05	7.113E+03	-8.024E+01
-1.491E+02	8.013E+09					
38	1.368E+01	1.666E+00	-1.804E-02	5.618E+05	6.957E+03	-8.320E+01
-1.619E+02	8.013E+09					
39	1.404E+01	1.588E+00	-1.773E-02	5.915E+05	6.789E+03	-8.616E+01
-1.747E+02	8.013E+09					
40	1.440E+01	1.512E+00	-1.740E-02	6.205E+05	6.600E+03	-9.272E+01
-2.030E+02	8.013E+09					
41	1.476E+01	1.438E+00	-1.706E-02	6.486E+05	6.383E+03	-9.928E+01
-2.314E+02	8.013E+09					
42	1.512E+01	1.365E+00	-1.671E-02	6.756E+05	6.137E+03	-1.058E+02
-2.597E+02	8.013E+09					
43	1.548E+01	1.294E+00	-1.633E-02	7.016E+05	5.864E+03	-1.124E+02
-2.880E+02	8.013E+09					
44	1.584E+01	1.224E+00	-1.595E-02	7.263E+05	5.559E+03	-1.198E+02
-3.200E+02	8.013E+09					
45	1.620E+01	1.156E+00	-1.555E-02	7.496E+05	5.224E+03	-1.272E+02
-3.520E+02	8.013E+09					
46	1.656E+01	1.089E+00	-1.514E-02	7.714E+05	4.856E+03	-1.346E+02
-3.839E+02	8.013E+09					
47	1.692E+01	1.025E+00	-1.472E-02	7.916E+05	4.456E+03	-1.420E+02
-4.159E+02	8.013E+09					
48	1.728E+01	9.623E-01	-1.429E-02	8.099E+05	4.024E+03	-1.494E+02
-4.479E+02	8.013E+09					
49	1.764E+01	9.015E-01	-1.385E-02	8.263E+05	3.607E+03	-1.349E+02
-3.851E+02	8.013E+09					
50	1.800E+01	8.427E-01	-1.340E-02	8.411E+05	3.246E+03	-1.236E+02
-3.363E+02	8.013E+09					
51	1.836E+01	7.858E-01	-1.294E-02	8.544E+05	2.928E+03	-1.153E+02
-3.007E+02	8.013E+09					

52	1.872E+01	7.308E-01	-1.248E-02	8.664E+05	2.614E+03	-1.213E+02
-3.263E+02	8.013E+09					
53	1.908E+01	6.780E-01	-1.201E-02	8.770E+05	2.275E+03	-1.272E+02
-3.517E+02	8.013E+09					
54	1.944E+01	6.271E-01	-1.153E-02	8.861E+05	1.913E+03	-1.322E+02
-3.735E+02	8.013E+09					
55	1.980E+01	5.783E-01	-1.105E-02	8.935E+05	1.531E+03	-1.359E+02
-3.893E+02	8.013E+09					
56	2.016E+01	5.316E-01	-1.057E-02	8.993E+05	1.136E+03	-1.388E+02
-4.022E+02	8.013E+09					
57	2.052E+01	4.870E-01	-1.008E-02	9.033E+05	7.284E+02	-1.412E+02
-4.123E+02	8.013E+09					
58	2.088E+01	4.445E-01	-9.595E-03	9.056E+05	3.138E+02	-1.422E+02
-4.169E+02	8.013E+09					
59	2.124E+01	4.041E-01	-9.106E-03	9.060E+05	-1.039E+02	-1.426E+02
-4.185E+02	8.013E+09					
60	2.160E+01	3.658E-01	-8.618E-03	9.047E+05	-5.220E+02	-1.424E+02
-4.176E+02	8.013E+09					
61	2.196E+01	3.297E-01	-8.131E-03	9.015E+05	-9.377E+02	-1.415E+02
-4.138E+02	8.013E+09					
62	2.232E+01	2.956E-01	-7.647E-03	8.966E+05	-1.383E+03	-1.562E+02
-4.771E+02	8.013E+09					
63	2.268E+01	2.636E-01	-7.165E-03	8.896E+05	-1.892E+03	-1.709E+02
-5.406E+02	8.013E+09					
64	2.304E+01	2.337E-01	-6.688E-03	8.802E+05	-2.462E+03	-1.847E+02
-6.003E+02	8.013E+09					
65	2.340E+01	2.058E-01	-6.217E-03	8.683E+05	-3.091E+03	-1.976E+02
-6.561E+02	8.013E+09					
66	2.376E+01	1.800E-01	-5.753E-03	8.535E+05	-3.772E+03	-2.093E+02
-7.066E+02	8.013E+09					
67	2.412E+01	1.561E-01	-5.297E-03	8.357E+05	-4.498E+03	-2.185E+02
-7.464E+02	8.013E+09					
68	2.448E+01	1.342E-01	-4.852E-03	8.147E+05	-5.260E+03	-2.258E+02
-7.778E+02	8.013E+09					
69	2.484E+01	1.142E-01	-4.420E-03	7.903E+05	-6.018E+03	-2.165E+02
-7.375E+02	8.013E+09					
70	2.520E+01	9.600E-02	-4.001E-03	7.627E+05	-6.730E+03	-2.045E+02
-6.857E+02	8.013E+09					
71	2.556E+01	7.961E-02	-3.598E-03	7.321E+05	-7.388E+03	-1.920E+02
-6.317E+02	8.013E+09					
72	2.592E+01	6.492E-02	-3.212E-03	6.988E+05	-7.986E+03	-1.760E+02
-5.628E+02	8.013E+09					
73	2.628E+01	5.185E-02	-2.845E-03	6.631E+05	-8.508E+03	-1.573E+02
-4.817E+02	8.013E+09					
74	2.664E+01	4.033E-02	-2.498E-03	6.253E+05	-8.954E+03	-1.406E+02
-4.097E+02	8.013E+09					
75	2.700E+01	3.027E-02	-2.171E-03	5.858E+05	-9.304E+03	-1.133E+02
-2.916E+02	8.013E+09					
76	2.736E+01	2.157E-02	-1.867E-03	5.449E+05	-9.527E+03	-8.118E+01
-1.531E+02	8.013E+09					

77	2.772E+01	1.414E-02	-1.584E-03	5.034E+05	-9.620E+03	-5.354E+01
-3.366E+01	8.013E+09					
78	2.808E+01	7.888E-03	-1.324E-03	4.618E+05	-9.603E+03	-3.003E+01
6.789E+01	8.013E+09					
79	2.844E+01	2.707E-03	-1.086E-03	4.205E+05	-9.493E+03	-1.037E+01
1.528E+02	8.013E+09					
80	2.880E+01	-1.494E-03	-8.702E-04	3.798E+05	-9.302E+03	7.279E+00
2.291E+02	8.013E+09					
81	2.916E+01	-4.811E-03	-6.761E-04	3.401E+05	-9.038E+03	2.355E+01
2.993E+02	8.013E+09					
82	2.952E+01	-7.335E-03	-5.031E-04	3.017E+05	-8.711E+03	3.606E+01
3.534E+02	8.013E+09					
83	2.988E+01	-9.157E-03	-3.503E-04	2.648E+05	-8.338E+03	4.521E+01
3.929E+02	8.013E+09					
84	3.024E+01	-1.036E-02	-2.170E-04	2.297E+05	-7.932E+03	5.138E+01
4.196E+02	8.013E+09					
85	3.060E+01	-1.103E-02	-1.022E-04	1.963E+05	-7.504E+03	5.494E+01
4.350E+02	8.013E+09					
86	3.096E+01	-1.125E-02	-4.842E-06	1.648E+05	-7.067E+03	5.624E+01
4.406E+02	8.013E+09					
87	3.132E+01	-1.107E-02	7.606E-05	1.353E+05	-6.627E+03	5.563E+01
4.379E+02	8.013E+09					
88	3.168E+01	-1.059E-02	1.415E-04	1.076E+05	-6.194E+03	5.341E+01
4.284E+02	8.013E+09					
89	3.204E+01	-9.852E-03	1.926E-04	8.174E+04	-5.657E+03	1.040E+02
6.467E+02	8.013E+09					
90	3.240E+01	-8.925E-03	2.304E-04	5.870E+04	-4.925E+03	1.433E+02
8.168E+02	8.013E+09					
91	3.276E+01	-7.861E-03	2.568E-04	3.919E+04	-4.052E+03	1.695E+02
9.300E+02	8.013E+09					
92	3.312E+01	-6.706E-03	2.738E-04	2.370E+04	-3.096E+03	1.816E+02
9.820E+02	8.013E+09					
93	3.348E+01	-5.496E-03	2.835E-04	1.245E+04	-2.184E+03	1.492E+02
8.420E+02	8.013E+09					
94	3.384E+01	-4.256E-03	2.882E-04	4.833E+03	-1.414E+03	1.158E+02
6.979E+02	8.013E+09					
95	3.420E+01	-3.006E-03	2.895E-04	2.337E+02	-7.887E+02	8.199E+01
5.518E+02	8.013E+09					
96	3.456E+01	-1.755E-03	2.891E-04	-1.982E+03	-3.104E+02	4.795E+01
4.048E+02	8.013E+09					
97	3.492E+01	-5.084E-04	2.879E-04	-2.448E+03	2.087E+01	1.392E+01
2.577E+02	8.013E+09					
98	3.528E+01	7.324E-04	2.867E-04	-1.801E+03	2.092E+02	-1.822E+01
1.189E+02	8.013E+09					
99	3.564E+01	1.969E-03	2.861E-04	-6.406E+02	2.085E+02	-7.361E+01
-1.204E+02	8.013E+09					
100	3.600E+01	3.204E-03	2.859E-04	0.000E+00	7.414E+01	-8.007E+01
-1.483E+02	8.013E+09					

END OF ANALYSIS

=====

PYWALL for Windows, Version 2022.7.5

Serial Number : 447597562

A Program for the Analysis of  
Flexible Retaining Walls  
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Path to file locations : J:\20230339\ODOT\07\_D11 Bridge  
St\_Bowerston\120494\400-Engineering\Structures\SFN\_3431790\EngData\17\_Temp  
Shoring\PYWALL - Updated 02-19-2025 - Check 1\  
Name of input data file : Temp Shoring\_FA.py7d  
Name of output file : Temp Shoring\_FA.py7o  
Name of plot output file : Temp Shoring\_FA.py7p

-----  
Time and Date of Analysis  
-----

Date: February 21, 2025 Time: 09:27:12

New Wall

\*\*\*\*\*  
\* PROGRAM CONTROL PARAMETERS \*  
\*\*\*\*\*

NO OF POINTS FOR SPECIFIED DEFLECTIONS AND SLOPES	= 0
NO OF WALL SECTIONS	= 1
NO OF CROSS SECTIONS	= 1
GENERATE EARTH PRESSURE INTERNALLY	= 1
GENERATE SOIL RESISTANCE (P-Y) CURVES INTERNALLY	= 1
NO OF P-Y MODIFICATION FACTORS FOR GEN. P-Y CURVES	= 0
NO OF USER-SPECIFIED SOIL RESISTANCE (P-Y) CURVES	= 0
NO OF TIE BACKS	= 0
NO OF STRUTS/RAKERS	= 0

HEIGHT OF WALL	=	32.000 FT
NUMBER OF INCREMENTS	=	100
INCREMENT LENGTH	=	3.840 IN
MAXIMUM ALLOWABLE DEFLECTION	=	100.000 IN
DEFLECTION CLOSURE TOLERANCE	=	1.000E-05 IN
MAXIMUM NUMBER OF ITERATIONS	=	100

\* WALL SECTIONS \*

SECT	TOP FT	BOTTOM FT	SECTION
1	0.00000	32.0000	1

\* CROSS SECTIONS \*

CROSS SECTION : 1  
 SECTION NAME : PZ  
 TYPE : ELASTIC  
 CROSS SECTION TYPE : SHEET PILING  
 SOURCE : USS  
 SECTION NAME : 1  
 WIDTH : 22.0000 IN  
 DEPTH : 9.00000 IN  
 WEB THICKNESS : 0.37500 IN  
 YOUNG MODULUS : 2.90000E+07 LBS/IN\*\*2

\* CROSS SECTIONS PROPERTIES \*

ELASTIC SECTIONS

SECT	DIAM, IN	I, IN**4
1	22.0000	154.700

\*\*\*\*\*

\* STIFFNESS AND LOAD DATA \*

\*\*\*\*\*

EI - FLEXURAL RIGIDITY, Q - TRANSVERSE LOAD,  
 S - STIFFNESS OF TRANSVERSE RESISTANCE,  
 T - TORQUE, P - AXIAL LOAD,  
 R - STIFFNESS OF TORSIONAL RESISTANCE.



FROM	TO	CONTD	EI	Q	S	T	R	P
			LBS-IN**2	LBS	LBS/IN	IN-LBS	IN-LBS	LBS
0	1		4.486E+09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
100	0		4.486E+09	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

\*\*\*\*\*  
 \* WALL INFORMATION \*  
 \*\*\*\*\*

FREE HEIGHT OF WALL = 9.490E+00 FT  
 WIDTH FOR EARTH PRESSURE, WA = 2.200E+01 IN  
 WIDTH FOR SOIL RESISTANCE, WP = 2.200E+01 IN  
 DEPTH TO THE WATER TABLE AT BACKFILL = 1.606E+01 FT  
 DEPTH TO THE WATER TABLE AT EXCAVATION = 1.606E+01 FT  
 UNIT WEIGHT OF WATER = 3.600E-02 LBS/IN\*\*3  
 SLOPE OF THE BACKFILL (deg.) = 0.000E+00  
 SLOPE OF THE EXCAVATION GROUND (deg.) = 0.000E+00  
 MODIFICATION FOR ACTIVE EARTH PRESSURE = 1.500E+00

\*\*\*\*\*  
 \* SURCHARGE INFORMATION \*  
 \*\*\*\*\*

UNIFORM SURFACE PRESSURE = 2.025E+00 LBS/IN\*\*2

\*\*\*\*\*  
 \* SOIL INFORMATION \*  
 \*\*\*\*\*

LAYER NO.	TOTAL THICKNESS	COHESION/ STRENGTH	TOTAL UNIT			
	FT	PSI	PHI DEG	WEIGHT PCI	DRAINED T OR F	ZTOP FT
1	7.3	5.2	0.0	0.072	T	0.00
2	2.2	0.0	28.0	0.064	T	7.27
3	6.6	0.0	28.0	0.064	T	9.49
4	8.3	0.0	28.0	0.064	T	16.06
5	10.0	10.4	0.0	0.073	T	24.38
6	5.6	31.2	0.0	0.076	T	34.38

\*\*\*\*\*

\* EFFECTIVE OVERBURDEN STRESS \*

DEPTH FT	STRESS LBS/IN**2
0.000E+00	2.025E+00
7.270E+00	8.286E+00
9.490E+00	9.982E+00
1.606E+01	1.500E+01
2.438E+01	1.776E+01
3.438E+01	2.219E+01

\*\*\*\*\*  
\* ACTIVE AND PASSIVE EARTH PRESSURE COEFFICIENT \*

LAYER NO.	ACTIVE EARTH COEFFICIENT	PASSIVE EARTH(*) COEFFICIENT	OPTIONAL EARTH(**) COEFFICIENT
1	1.000E+00	1.000E+00	4.217E-01
2	3.610E-01	2.770E+00	4.217E-01
3	3.610E-01	2.770E+00	1.000E-04
4	3.610E-01	2.770E+00	1.000E-04
5	1.000E+00	1.000E+00	1.000E-04
6	1.000E+00	1.000E+00	1.000E-04

NOTES:

- (\*) PASSIVE EARTH COEFFICIENT IS PRINTED ONLY FOR REFERENCE,  
IT IS NOT USED FOR ANALYSIS  
(\*\*) OPTIONAL EARTH COEFFICIENT IS USED TO ESTIMATE ACTIVE PRESSURE  
IF IT IS DIFFERENT THAN ZERO

\*\*\*\*\*  
\* ACTIVE EARTH PRESSURE OF EACH LAYER \*

LAYER NO	PA1 LBS/IN	Z1 FT	PA2 LBS/IN	Z2 FT	PA3 LBS/IN	Z3 FT	PA4 LBS/IN
1	111.78	3.63	172.74	4.85	0.00	-0.00	0.00
2	139.63	8.38	14.29	8.75	0.00	-0.00	0.00

\* GENERATED TRIANGULAR-DISTRIBUTION EARTH PRESSURE

DEPTH FT	ACTIVE EARTH PRESSURE LBS/IN
0.00000E+00	2.81886E+01
5.01383E-01	3.41968E+01

1.00275E+00	4.02050E+01
1.50417E+00	4.62154E+01
2.00550E+00	5.22236E+01
2.50692E+00	5.82318E+01
3.00825E+00	6.42400E+01
3.50967E+00	7.02482E+01
4.01100E+00	7.62586E+01
4.51242E+00	8.22668E+01
5.01383E+00	8.82750E+01
5.51517E+00	9.42832E+01
6.01658E+00	1.00291E+02
6.51792E+00	1.06302E+02
7.01933E+00	1.12310E+02
7.51667E+00	1.17935E+02
8.01000E+00	1.23180E+02
8.50333E+00	1.28425E+02
8.99667E+00	1.33670E+02
9.49000E+00	1.38915E+02
9.98917E+00	3.29384E-02
1.04883E+01	3.29384E-02
1.09867E+01	3.29384E-02
1.14858E+01	3.29384E-02
1.19850E+01	3.29384E-02
1.24842E+01	3.29384E-02
1.29825E+01	3.29384E-02
1.34817E+01	3.29384E-02
1.39808E+01	3.29384E-02
1.44800E+01	3.29384E-02
1.49792E+01	3.29384E-02
1.54775E+01	3.29384E-02
1.59767E+01	3.29384E-02
1.64758E+01	3.29384E-02
1.69750E+01	3.29384E-02
1.74742E+01	3.29384E-02
1.79733E+01	3.29384E-02
1.84725E+01	3.29384E-02
1.89717E+01	3.29384E-02
1.94708E+01	3.29384E-02
1.99700E+01	3.29384E-02
2.04700E+01	3.29384E-02
2.09692E+01	3.29384E-02
2.14683E+01	3.29384E-02
2.19675E+01	3.29384E-02
2.24667E+01	3.29384E-02
2.29658E+01	3.29384E-02
2.34650E+01	3.29384E-02
2.39642E+01	3.29384E-02
2.44633E+01	3.29384E-02
2.49633E+01	3.29384E-02
2.54633E+01	3.29384E-02

2.59633E+01	3.29384E-02
2.64633E+01	3.29384E-02
2.69633E+01	3.29384E-02
2.74633E+01	3.29384E-02
2.79633E+01	3.29384E-02
2.84633E+01	3.29384E-02
2.89633E+01	3.29384E-02
2.94633E+01	3.29384E-02
2.99633E+01	3.29384E-02
3.04633E+01	3.29384E-02
3.09633E+01	3.29384E-02
3.14633E+01	3.29384E-02
3.19633E+01	3.29384E-02

\*\*\*\*\*  
 \* SOIL LAYERS AND STRENGTH DATA \*  
 \*\*\*\*\*

X AT THE SURFACE OF EXCAVATION SIDE = 9.49 FT

2 LAYER(S) OF SOIL

LAYER 1  
 THE SOIL IS A SAND

LAYER 2  
 THE SOIL IS A STIFF CLAY WITH FREE WATER

DISTRIBUTION OF EFFECTIVE UNIT WEIGHT WITH DEPTH  
 6 POINTS

X, FT	WEIGHT, LBS/IN**3
9.4900	6.3657E-02
16.0600	6.3657E-02
16.0600	3.6917E-02
34.3800	3.6917E-02
34.3800	3.9810E-02
40.0000	3.9810E-02

DISTRIBUTION OF STRENGTH PARAMETERS WITH DEPTH  
 4 POINTS

X, FT	C, LBS/IN**2	PHI, DEGREE	E50	KPY, LBS/IN**3
9.49	0.0000E+00	28.000	0.0000E+00	2.5000E+01
24.38	0.0000E+00	28.000	0.0000E+00	2.5000E+01
24.38	1.0417E+01	0.000	1.0000E-02	3.5000E+02

32.64      1.0417E+01      0.000      1.0000E-02      3.5000E+02

# P-Y CURVES DATA

## AT THE EXCAVATION SIDE

DEPTH BELOW GS	DIAM	PHI	GAMMA AVG	KPY	A	B	PC
FT	IN		LBS/IN**3	LBS/IN**3			LB /IN
0.01	22.00	28.00	6.37E-02	2.50E+01	2.82	2.13	6.06E-01

Y	P
IN	LBS/IN
0.000	0.000
0.015	0.038
0.030	0.076
0.058	0.144
0.085	0.213
0.113	0.281
0.140	0.350
0.167	0.418
0.195	0.487
0.222	0.555
0.249	0.623
0.277	0.692
0.304	0.760
0.431	1.077
0.558	1.394
0.684	1.711
0.821	1.711

P-Multiplier = 1.000E+00 Y-Multiplier = 1.000E+00

## AT THE BACKFILL SIDE

DEPTH BELOW GS	DIAM	PHI	GAMMA AVG	KPY	A	B	PC
FT	IN		LBS/IN**3	LBS/IN**3			LB /IN
9.50	22.00	28.00	6.99E-02	2.50E+01	0.88	0.50	9.50E+02

Y	P
IN	LBS/IN
0.000	0.000
0.010	28.495
0.020	56.990
0.038	108.281

0.056	159.572
0.074	210.863
0.092	262.154
0.110	313.445
0.128	362.267
0.146	392.439
0.164	421.183
0.182	448.713
0.200	475.195
0.283	595.577
0.367	715.960
0.450	836.343
0.540	836.343

P-Multiplier = 1.000E+00 Y-Multiplier = 1.000E+00

AT THE EXCAVATION SIDE

DEPTH BELOW GS	DIAM	PHI	GAMMA AVG	KPY	A	B	PC
FT	IN		LBS/IN**3	LBS/IN**3			LB /IN
3.72	22.00	28.00	6.37E-02	2.50E+01	0.94	0.58	2.71E+02

Y	P
IN	LBS/IN
0.000	0.000
0.010	11.168
0.020	22.335
0.038	42.437
0.056	62.538
0.074	82.640
0.092	102.741
0.110	116.185
0.128	125.383
0.146	133.958
0.164	142.021
0.182	149.654
0.200	156.921
0.283	189.791
0.367	222.662
0.450	255.532
0.540	255.532

P-Multiplier = 1.000E+00 Y-Multiplier = 1.000E+00

AT THE BACKFILL SIDE

DEPTH BELOW GS	DIAM	PHI	GAMMA AVG	KPY	A	B	PC
FT	IN		LBS/IN**3	LBS/IN**3			LB /IN
13.21	22.00	28.00	6.81E-02	2.50E+01	0.88	0.50	1.22E+03

Y	P
IN	LBS/IN
0.000	0.000
0.010	39.638
0.020	79.275
0.038	150.623
0.056	221.970
0.074	293.318
0.092	364.665
0.110	424.227
0.128	465.174
0.146	503.916
0.164	540.825
0.182	576.176
0.200	610.180
0.283	764.759
0.367	919.338
0.450	1073.917
0.540	1073.917

P-Multiplier = 1.000E+00 Y-Multiplier = 1.000E+00

AT THE EXCAVATION SIDE

DEPTH BELOW GS	DIAM	PHI	GAMMA AVG	KPY	A	B	PC
FT	IN		LBS/IN**3	LBS/IN**3			LB /IN
7.45	22.00	28.00	5.94E-02	2.50E+01	0.88	0.50	5.05E+02

Y	P
IN	LBS/IN
0.000	0.000
0.010	22.335
0.020	44.670
0.038	84.873
0.056	116.491
0.074	138.002
0.092	157.535
0.110	175.614
0.128	192.565
0.146	208.603
0.164	223.882
0.182	238.516
0.200	252.592
0.283	316.582

0.367	380.572
0.450	444.562
0.540	444.562

P-Multiplier = 1.000E+00 Y-Multiplier = 1.000E+00

AT THE BACKFILL SIDE

DEPTH BELOW GS FT	DIAM IN	PHI	GAMMA AVG LBS/IN**3	KPY LBS/IN**3	A	B	PC LB /IN
16.93	22.00	28.00	6.53E-02	2.50E+01	0.88	0.50	1.45E+03

Y IN	P LBS/IN
0.000	0.000
0.010	50.805
0.020	101.610
0.038	193.059
0.056	284.508
0.074	375.957
0.092	453.712
0.110	505.783
0.128	554.601
0.146	600.791
0.164	644.796
0.182	686.943
0.200	727.484
0.283	911.780
0.367	1096.076
0.450	1280.372
0.540	1280.372

P-Multiplier = 1.000E+00 Y-Multiplier = 1.000E+00

AT THE EXCAVATION SIDE

DEPTH BELOW GS FT	DIAM IN	PHI	GAMMA AVG LBS/IN**3	KPY LBS/IN**3	A	B	PC LB /IN
11.17	22.00	28.00	4.88E-02	2.50E+01	0.88	0.50	6.23E+02

Y IN	P LBS/IN
0.000	0.000
0.014	47.427
0.028	94.854
0.045	126.536



0.063	153.737
0.080	178.128
0.097	200.528
0.114	221.417
0.131	241.106
0.148	259.807
0.166	277.677
0.183	294.835
0.200	311.371
0.283	390.252
0.367	469.132
0.450	548.013
0.540	548.013

P-Multiplier = 1.000E+00 Y-Multiplier = 1.000E+00

AT THE BACKFILL SIDE

DEPTH BELOW GS	DIAM	PHI	GAMMA AVG	KPY	A	B	PC
FT	IN		LBS/IN**3	LBS/IN**3			LB /IN
20.66	22.00	28.00	5.85E-02	2.50E+01	0.88	0.50	1.57E+03

Y	P
IN	LBS/IN
0.000	0.000
0.010	61.973
0.020	123.945
0.038	235.496
0.056	347.046
0.074	429.570
0.092	490.371
0.110	546.649
0.128	599.412
0.146	649.334
0.164	696.894
0.182	742.446
0.200	786.263
0.283	985.450
0.367	1184.636
0.450	1383.823
0.540	1383.823

P-Multiplier = 1.000E+00 Y-Multiplier = 1.000E+00

AT THE EXCAVATION SIDE

DEPTH BELOW GS	DIAM	PHI	GAMMA AVG	KPY	A	B	PC
FT	IN		LBS/IN**3	LBS/IN**3			LB /IN
14.88	22.00	28.00	4.36E-02	2.50E+01	0.88	0.50	7.40E+02

Y	P
IN	LBS/IN
0.000	0.000
0.011	47.185
0.021	94.370
0.039	137.002
0.057	172.327
0.075	203.478
0.093	231.810
0.111	258.063
0.128	282.695
0.146	306.013
0.164	328.238
0.182	349.531
0.200	370.019
0.283	463.757
0.367	557.495
0.450	651.233
0.540	651.233

P-Multiplier = 1.000E+00 Y-Multiplier = 1.000E+00

AT THE BACKFILL SIDE

DEPTH BELOW GS	DIAM	PHI	GAMMA AVG	KPY	A	B	PC
FT	IN		LBS/IN**3	LBS/IN**3			LB /IN
24.37	22.00	28.00	5.38E-02	2.50E+01	0.88	0.50	1.69E+03

Y	P
IN	LBS/IN
0.000	0.000
0.010	73.115
0.020	146.230
0.038	277.837
0.056	389.657
0.074	461.612
0.092	526.948
0.110	587.423
0.128	644.122
0.146	697.768
0.164	748.875
0.182	797.825
0.200	844.910
0.283	1058.954

0.367	1272.998
0.450	1487.042
0.540	1487.042

P-Multiplier = 1.000E+00 Y-Multiplier = 1.000E+00

#### AT THE EXCAVATION SIDE

KPY	DEPTH BELOW GS FT	DIAM IN	C LBS/IN**2	CAVG LBS/IN**2	GAMMA AVG LBS/IN**3	E50
LBS/IN**3	14.90	22.000	1.04E+01	1.04E+01	4.35E-02	1.0000E-02
3.50000E+02						

Y IN	P LBS/IN
0.000	0.000
0.036	172.416
0.072	243.834
0.108	284.075
0.144	310.206
0.180	328.054
0.216	339.976
0.252	347.319
0.288	350.954
0.324	351.483
0.360	349.351
0.396	344.893
0.432	338.373
0.720	244.076
1.008	149.640
1.296	55.203
10.800	55.203

P-Multiplier = 1.000E+00 Y-Multiplier = 1.000E+00

#### AT THE BACKFILL SIDE

KPY	DEPTH BELOW GS FT	DIAM IN	C LBS/IN**2	CAVG LBS/IN**2	GAMMA AVG LBS/IN**3	E50
LBS/IN**3	24.39	22.000	1.04E+01	1.04E+01	5.38E-02	1.0000E-02
3.50000E+02						

Y	P
IN	LBS/IN
0.000	0.000
0.036	232.555
0.072	328.883
0.108	383.160
0.144	418.406
0.180	442.479
0.216	458.559
0.252	468.464
0.288	473.366
0.324	474.080
0.360	471.204
0.396	465.191
0.432	456.398
0.720	329.209
1.008	201.834
1.296	74.458
10.800	74.458

P-Multiplier = 1.000E+00 Y-Multiplier = 1.000E+00

#### AT THE EXCAVATION SIDE

KPY	DEPTH BELOW GS	DIAM	C	CAVG	GAMMA AVG	E50
	FT	IN	LBS/IN**2	LBS/IN**2	LBS/IN**3	
LBS/IN**3	16.96	22.000	1.04E+01	1.04E+01	4.27E-02	1.0000E-02
3.50000E+02						

Y	P
IN	LBS/IN
0.000	0.000
0.036	177.906
0.072	251.597
0.108	293.120
0.144	320.083
0.180	338.498
0.216	350.800
0.252	358.377
0.288	362.127
0.324	362.674
0.360	360.473
0.396	355.873
0.432	349.146
0.720	251.847
1.008	154.404

1.296	56.961
10.800	56.961

P-Multiplier = 1.000E+00 Y-Multiplier = 1.000E+00

# AT THE BACKFILL SIDE

KPY	DEPTH BELOW GS	DIAM	C	CAVG	GAMMA AVG	E50
	FT	IN	LBS/IN**2	LBS/IN**2	LBS/IN**3	
LBS/IN**3	26.45	22.000	1.04E+01	1.23E+01	5.25E-02	1.0000E-02
3.50000E+02						

Y	P
IN	LBS/IN
0.000	0.000
0.036	238.044
0.072	336.646
0.108	392.205
0.144	428.282
0.180	452.923
0.216	469.383
0.252	479.522
0.288	484.539
0.324	485.271
0.360	482.326
0.396	476.171
0.432	467.171
0.720	336.980
1.008	206.598
1.296	76.216
10.800	76.216

P-Multiplier = 1.000E+00 Y-Multiplier = 1.000E+00

# AT THE EXCAVATION SIDE

KPY	DEPTH BELOW GS	DIAM	C	CAVG	GAMMA AVG	E50
	FT	IN	LBS/IN**2	LBS/IN**2	LBS/IN**3	
LBS/IN**3	19.02	22.000	1.04E+01	3.96E+01	4.21E-02	1.0000E-02
3.50000E+02						

Y	P
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IN	LBS/IN
0.000	0.000
0.036	183.417
0.072	259.391
0.108	302.201
0.144	329.999
0.180	348.985
0.216	361.668
0.252	369.480
0.288	373.346
0.324	373.910
0.360	371.641
0.396	366.898
0.432	359.963
0.720	259.649
1.008	159.187
1.296	58.726
10.800	58.726

P-Multiplier = 1.000E+00 Y-Multiplier = 1.000E+00

# AT THE BACKFILL SIDE

KPY	DEPTH BELOW GS	DIAM	C	CAVG	GAMMA AVG	E50
	FT	IN	LBS/IN**2	LBS/IN**2	LBS/IN**3	
LBS/IN**3	28.51	22.000	1.04E+01	2.08E+01	5.13E-02	1.0000E-02
3.50000E+02						

Y	P
IN	LBS/IN
0.000	0.000
0.036	243.556
0.072	344.440
0.108	401.286
0.144	438.198
0.180	463.410
0.216	480.251
0.252	490.624
0.288	495.758
0.324	496.506
0.360	493.494
0.396	487.197
0.432	477.987
0.720	344.783
1.008	211.381
1.296	77.980

10.800

77.980

P-Multiplier = 1.000E+00 Y-Multiplier = 1.000E+00

## AT THE EXCAVATION SIDE

KPY	DEPTH BELOW GS	DIAM	C	CAVG	GAMMA AVG	E50
	FT	IN	LBS/IN**2	LBS/IN**2	LBS/IN**3	
LBS/IN**3	21.09	22.000	1.04E+01	4.93E+01	4.16E-02	1.0000E-02
3.50000E+02						

Y	P
IN	LBS/IN
0.000	0.000
0.036	188.929
0.072	267.186
0.108	311.282
0.144	339.915
0.180	359.472
0.216	372.536
0.252	380.582
0.288	384.565
0.324	385.145
0.360	382.808
0.396	377.924
0.432	370.780
0.720	267.452
1.008	163.971
1.296	60.490
10.800	60.490

P-Multiplier = 1.000E+00 Y-Multiplier = 1.000E+00

## AT THE BACKFILL SIDE

KPY	DEPTH BELOW GS	DIAM	C	CAVG	GAMMA AVG	E50
	FT	IN	LBS/IN**2	LBS/IN**2	LBS/IN**3	
LBS/IN**3	30.57	22.000	1.04E+01	2.71E+01	5.04E-02	1.0000E-02
3.50000E+02						

Y	P
IN	LBS/IN

0.000	0.000
0.036	249.068
0.072	352.235
0.108	410.367
0.144	448.115
0.180	473.897
0.216	491.119
0.252	501.727
0.288	506.977
0.324	507.742
0.360	504.661
0.396	498.222
0.432	488.804
0.720	352.585
1.008	216.165
1.296	79.745
10.800	79.745

P-Multiplier = 1.000E+00 Y-Multiplier = 1.000E+00

# AT THE EXCAVATION SIDE

KPY	DEPTH BELOW GS	DIAM	C	CAVG	GAMMA AVG	E50
	FT	IN	LBS/IN**2	LBS/IN**2	LBS/IN**3	
LBS/IN**3	23.14	22.000	1.04E+01	5.42E+01	4.12E-02	1.0000E-02
3.50000E+02						

Y	P
IN	LBS/IN
0.000	0.000
0.036	194.418
0.072	274.949
0.108	320.326
0.144	349.791
0.180	369.917
0.216	383.360
0.252	391.640
0.288	395.738
0.324	396.336
0.360	393.931
0.396	388.904
0.432	381.553
0.720	275.222
1.008	168.735
1.296	62.248
10.800	62.248





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0	0.000E+00	3.720E+00	-2.228E-02	0.000E+00	0.000E+00	0.000E+00
0.000E+00	4.486E+09					
1	3.200E-01	3.634E+00	-2.228E-02	0.000E+00	6.149E+01	0.000E+00
1.230E+02	4.486E+09					
2	6.400E-01	3.549E+00	-2.228E-02	4.722E+02	1.918E+02	0.000E+00
1.377E+02	4.486E+09					
3	9.600E-01	3.463E+00	-2.228E-02	1.473E+03	3.369E+02	0.000E+00
1.524E+02	4.486E+09					
4	1.280E+00	3.378E+00	-2.227E-02	3.059E+03	4.967E+02	0.000E+00
1.671E+02	4.486E+09					
5	1.600E+00	3.292E+00	-2.227E-02	5.288E+03	6.712E+02	0.000E+00
1.819E+02	4.486E+09					
6	1.920E+00	3.207E+00	-2.226E-02	8.214E+03	8.604E+02	0.000E+00
1.966E+02	4.486E+09					
7	2.240E+00	3.121E+00	-2.226E-02	1.190E+04	1.064E+03	0.000E+00
2.113E+02	4.486E+09					
8	2.560E+00	3.036E+00	-2.224E-02	1.639E+04	1.283E+03	0.000E+00
2.261E+02	4.486E+09					
9	2.880E+00	2.950E+00	-2.223E-02	2.175E+04	1.516E+03	0.000E+00
2.408E+02	4.486E+09					
10	3.200E+00	2.865E+00	-2.221E-02	2.804E+04	1.765E+03	0.000E+00
2.555E+02	4.486E+09					
11	3.520E+00	2.780E+00	-2.218E-02	3.530E+04	2.028E+03	0.000E+00
2.702E+02	4.486E+09					
12	3.840E+00	2.695E+00	-2.215E-02	4.361E+04	2.305E+03	0.000E+00
2.850E+02	4.486E+09					
13	4.160E+00	2.610E+00	-2.210E-02	5.301E+04	2.597E+03	0.000E+00
2.997E+02	4.486E+09					
14	4.480E+00	2.525E+00	-2.205E-02	6.355E+04	2.904E+03	0.000E+00
3.144E+02	4.486E+09					
15	4.800E+00	2.440E+00	-2.199E-02	7.531E+04	3.226E+03	0.000E+00
3.291E+02	4.486E+09					
16	5.120E+00	2.356E+00	-2.192E-02	8.833E+04	3.563E+03	0.000E+00
3.439E+02	4.486E+09					
17	5.440E+00	2.272E+00	-2.184E-02	1.027E+05	3.914E+03	0.000E+00
3.586E+02	4.486E+09					
18	5.760E+00	2.188E+00	-2.175E-02	1.184E+05	4.280E+03	0.000E+00
3.733E+02	4.486E+09					
19	6.080E+00	2.105E+00	-2.164E-02	1.355E+05	4.661E+03	0.000E+00
3.880E+02	4.486E+09					
20	6.400E+00	2.022E+00	-2.152E-02	1.542E+05	5.056E+03	0.000E+00
4.028E+02	4.486E+09					
21	6.720E+00	1.940E+00	-2.138E-02	1.744E+05	5.466E+03	0.000E+00
4.175E+02	4.486E+09					
22	7.040E+00	1.858E+00	-2.122E-02	1.962E+05	5.891E+03	0.000E+00
4.322E+02	4.486E+09					
23	7.360E+00	1.777E+00	-2.104E-02	2.196E+05	6.330E+03	0.000E+00
4.465E+02	4.486E+09					
24	7.680E+00	1.696E+00	-2.084E-02	2.448E+05	6.783E+03	0.000E+00

4.595E+02	4.486E+09					
25	8.000E+00	1.617E+00	-2.062E-02	2.717E+05	7.249E+03	0.000E+00
4.726E+02	4.486E+09					
26	8.320E+00	1.538E+00	-2.037E-02	3.005E+05	7.729E+03	0.000E+00
4.857E+02	4.486E+09					
27	8.640E+00	1.460E+00	-2.010E-02	3.311E+05	8.221E+03	0.000E+00
4.987E+02	4.486E+09					
28	8.960E+00	1.383E+00	-1.981E-02	3.636E+05	8.726E+03	0.000E+00
5.118E+02	4.486E+09					
29	9.280E+00	1.308E+00	-1.948E-02	3.981E+05	9.244E+03	0.000E+00
5.249E+02	4.486E+09					
30	9.600E+00	1.234E+00	-1.912E-02	4.346E+05	9.505E+03	-8.555E-01
-3.159E+00	4.486E+09					
31	9.920E+00	1.161E+00	-1.874E-02	4.711E+05	9.456E+03	-2.478E+01
-9.504E+01	4.486E+09					
32	1.024E+01	1.090E+00	-1.832E-02	5.072E+05	9.317E+03	-4.785E+01
-1.836E+02	4.486E+09					
33	1.056E+01	1.020E+00	-1.787E-02	5.426E+05	9.089E+03	-7.093E+01
-2.722E+02	4.486E+09					
34	1.088E+01	9.528E-01	-1.739E-02	5.770E+05	8.772E+03	-9.400E+01
-3.608E+02	4.486E+09					
35	1.120E+01	8.869E-01	-1.688E-02	6.100E+05	8.367E+03	-1.171E+02
-4.494E+02	4.486E+09					
36	1.152E+01	8.231E-01	-1.635E-02	6.413E+05	7.873E+03	-1.401E+02
-5.380E+02	4.486E+09					
37	1.184E+01	7.614E-01	-1.578E-02	6.705E+05	7.291E+03	-1.632E+02
-6.266E+02	4.486E+09					
38	1.216E+01	7.019E-01	-1.520E-02	6.973E+05	6.620E+03	-1.863E+02
-7.152E+02	4.486E+09					
39	1.248E+01	6.447E-01	-1.459E-02	7.213E+05	5.861E+03	-2.093E+02
-8.037E+02	4.486E+09					
40	1.280E+01	5.898E-01	-1.397E-02	7.423E+05	5.013E+03	-2.324E+02
-8.923E+02	4.486E+09					
41	1.312E+01	5.374E-01	-1.332E-02	7.598E+05	4.076E+03	-2.555E+02
-9.810E+02	4.486E+09					
42	1.344E+01	4.875E-01	-1.267E-02	7.736E+05	3.065E+03	-2.713E+02
-1.042E+03	4.486E+09					
43	1.376E+01	4.401E-01	-1.200E-02	7.834E+05	2.002E+03	-2.825E+02
-1.085E+03	4.486E+09					
44	1.408E+01	3.953E-01	-1.133E-02	7.890E+05	9.293E+02	-2.761E+02
-1.060E+03	4.486E+09					
45	1.440E+01	3.531E-01	-1.065E-02	7.905E+05	-1.159E+02	-2.683E+02
-1.030E+03	4.486E+09					
46	1.472E+01	3.135E-01	-9.976E-03	7.881E+05	-1.129E+03	-2.593E+02
-9.954E+02	4.486E+09					
47	1.504E+01	2.765E-01	-9.304E-03	7.818E+05	-2.105E+03	-2.493E+02
-9.570E+02	4.486E+09					
48	1.536E+01	2.421E-01	-8.639E-03	7.719E+05	-3.041E+03	-2.385E+02
-9.158E+02	4.486E+09					
49	1.568E+01	2.102E-01	-7.984E-03	7.585E+05	-3.936E+03	-2.273E+02

-8.725E+02	4.486E+09					
50	1.600E+01	1.808E-01	-7.342E-03	7.417E+05	-4.785E+03	-2.154E+02
-8.271E+02	4.486E+09					
51	1.632E+01	1.538E-01	-6.716E-03	7.217E+05	-5.587E+03	-2.023E+02
-7.766E+02	4.486E+09					
52	1.664E+01	1.292E-01	-6.108E-03	6.988E+05	-6.336E+03	-1.880E+02
-7.219E+02	4.486E+09					
53	1.696E+01	1.069E-01	-5.521E-03	6.731E+05	-7.028E+03	-1.725E+02
-6.622E+02	4.486E+09					
54	1.728E+01	8.680E-02	-4.957E-03	6.448E+05	-7.657E+03	-1.548E+02
-5.943E+02	4.486E+09					
55	1.760E+01	6.882E-02	-4.418E-03	6.142E+05	-8.217E+03	-1.369E+02
-5.257E+02	4.486E+09					
56	1.792E+01	5.287E-02	-3.906E-03	5.817E+05	-8.706E+03	-1.178E+02
-4.522E+02	4.486E+09					
57	1.824E+01	3.883E-02	-3.423E-03	5.474E+05	-9.115E+03	-9.562E+01
-3.671E+02	4.486E+09					
58	1.856E+01	2.658E-02	-2.969E-03	5.117E+05	-9.436E+03	-7.174E+01
-2.754E+02	4.486E+09					
59	1.888E+01	1.602E-02	-2.547E-03	4.749E+05	-9.660E+03	-4.472E+01
-1.716E+02	4.486E+09					
60	1.920E+01	7.019E-03	-2.157E-03	4.375E+05	-9.785E+03	-2.025E+01
-7.762E+01	4.486E+09					
61	1.952E+01	-5.441E-04	-1.798E-03	3.998E+05	-9.817E+03	3.169E+00
1.230E+01	4.486E+09					
62	1.984E+01	-6.793E-03	-1.472E-03	3.621E+05	-9.734E+03	4.020E+01
1.545E+02	4.486E+09					
63	2.016E+01	-1.185E-02	-1.178E-03	3.250E+05	-9.520E+03	7.123E+01
2.737E+02	4.486E+09					
64	2.048E+01	-1.584E-02	-9.155E-04	2.890E+05	-9.197E+03	9.668E+01
3.714E+02	4.486E+09					
65	2.080E+01	-1.888E-02	-6.830E-04	2.544E+05	-8.787E+03	1.170E+02
4.493E+02	4.486E+09					
66	2.112E+01	-2.109E-02	-4.793E-04	2.215E+05	-8.307E+03	1.328E+02
5.100E+02	4.486E+09					
67	2.144E+01	-2.256E-02	-3.030E-04	1.906E+05	-7.775E+03	1.444E+02
5.545E+02	4.486E+09					
68	2.176E+01	-2.341E-02	-1.521E-04	1.618E+05	-7.205E+03	1.522E+02
5.845E+02	4.486E+09					
69	2.208E+01	-2.373E-02	-2.502E-05	1.352E+05	-6.612E+03	1.567E+02
6.017E+02	4.486E+09					
70	2.240E+01	-2.361E-02	8.037E-05	1.110E+05	-6.008E+03	1.582E+02
6.077E+02	4.486E+09					
71	2.272E+01	-2.312E-02	1.660E-04	8.911E+04	-5.402E+03	1.573E+02
6.040E+02	4.486E+09					
72	2.304E+01	-2.233E-02	2.339E-04	6.952E+04	-4.804E+03	1.542E+02
5.922E+02	4.486E+09					
73	2.336E+01	-2.132E-02	2.860E-04	5.222E+04	-4.221E+03	1.494E+02
5.737E+02	4.486E+09					
74	2.368E+01	-2.013E-02	3.242E-04	3.711E+04	-3.659E+03	1.431E+02

5.496E+02	4.486E+09					
75	2.400E+01	-1.883E-02	3.504E-04	2.411E+04	-3.124E+03	1.357E+02
5.213E+02	4.486E+09					
76	2.432E+01	-1.744E-02	3.664E-04	1.312E+04	-2.618E+03	1.275E+02
4.898E+02	4.486E+09					
77	2.464E+01	-1.602E-02	3.737E-04	4.008E+03	-2.151E+03	1.155E+02
4.436E+02	4.486E+09					
78	2.496E+01	-1.457E-02	3.740E-04	-3.402E+03	-1.731E+03	1.036E+02
3.981E+02	4.486E+09					
79	2.528E+01	-1.314E-02	3.685E-04	-9.283E+03	-1.354E+03	9.214E+01
3.540E+02	4.486E+09					
80	2.560E+01	-1.174E-02	3.586E-04	-1.380E+04	-1.022E+03	8.116E+01
3.118E+02	4.486E+09					
81	2.592E+01	-1.039E-02	3.454E-04	-1.713E+04	-7.298E+02	7.076E+01
2.718E+02	4.486E+09					
82	2.624E+01	-9.091E-03	3.298E-04	-1.941E+04	-4.767E+02	6.101E+01
2.344E+02	4.486E+09					
83	2.656E+01	-7.856E-03	3.126E-04	-2.079E+04	-2.597E+02	5.194E+01
1.996E+02	4.486E+09					
84	2.688E+01	-6.690E-03	2.945E-04	-2.140E+04	-7.463E+01	4.440E+01
1.706E+02	4.486E+09					
85	2.720E+01	-5.594E-03	2.762E-04	-2.136E+04	8.231E+01	3.727E+01
1.433E+02	4.486E+09					
86	2.752E+01	-4.569E-03	2.582E-04	-2.077E+04	2.127E+02	3.056E+01
1.175E+02	4.486E+09					
87	2.784E+01	-3.611E-03	2.408E-04	-1.973E+04	3.180E+02	2.425E+01
9.325E+01	4.486E+09					
88	2.816E+01	-2.719E-03	2.246E-04	-1.833E+04	3.999E+02	1.833E+01
7.051E+01	4.486E+09					
89	2.848E+01	-1.887E-03	2.096E-04	-1.666E+04	4.598E+02	1.277E+01
4.916E+01	4.486E+09					
90	2.880E+01	-1.109E-03	1.961E-04	-1.480E+04	4.989E+02	7.532E+00
2.905E+01	4.486E+09					
91	2.912E+01	-3.807E-04	1.843E-04	-1.283E+04	5.184E+02	2.593E+00
1.008E+01	4.486E+09					
92	2.944E+01	3.059E-04	1.742E-04	-1.082E+04	5.205E+02	-1.578E+00
-5.935E+00	4.486E+09					
93	2.976E+01	9.570E-04	1.658E-04	-8.830E+03	5.081E+02	-4.959E+00
-1.891E+01	4.486E+09					
94	3.008E+01	1.579E-03	1.590E-04	-6.915E+03	4.829E+02	-8.216E+00
-3.142E+01	4.486E+09					
95	3.040E+01	2.178E-03	1.539E-04	-5.121E+03	4.454E+02	-1.138E+01
-4.358E+01	4.486E+09					
96	3.072E+01	2.761E-03	1.502E-04	-3.494E+03	3.820E+02	-2.173E+01
-8.332E+01	4.486E+09					
97	3.104E+01	3.332E-03	1.478E-04	-2.188E+03	3.066E+02	-1.757E+01
-6.733E+01	4.486E+09					
98	3.136E+01	3.896E-03	1.463E-04	-1.139E+03	2.334E+02	-2.064E+01
-7.913E+01	4.486E+09					
99	3.168E+01	4.456E-03	1.457E-04	-3.950E+02	1.484E+02	-2.372E+01

-9.096E+01	4.486E+09					
100	3.200E+01	5.014E-03	1.455E-04	0.000E+00	5.144E+01	-2.682E+01
-1.029E+02	4.486E+09					

END OF ANALYSIS