TO NODE	SOIL MODEL NO.	FROM END MESH	TO END MESH	USER DEFINED LATERAL "K"	ULTIMATE LATERAL LOAD	USER DEFINED AXIAL STIF	ULTIMATE AXIAL LOAD	USER DEFINED UPWARD STIF	ULTIMATE UPWARD LOAD	USER DEFINED DWNWARD STIF	ULTIMATE DWNWARD LOAD
	0	☐	☐	0	0	0	0	0	0	0	0
	0	☐	☐	0	0	0	0	0	0	0	0

Basic Soil Modeler

Soil Model 1 Of 1

Add New Soil Model

Model Number: 2

Delete This Soil Model

Soil Model Type: American Lifelines Alliance

Soil Classification: ○ Clay   ● Sand/Gravel

F - COATING FACTOR	0.8
GAMMA - DRY SOIL DENSITY ....(kg/cu.m.)	
GAMMA PRIME - EFFECTIVE SOIL DENSITY (kg/cu.m.)	
H - BURIED DEPTH TO TOP OF PIPE .... (m.)	
FRICT. ANGLE (Sand=27-45;Silt=26-35;Clay=0)(deg)	
K0 - COEFFICIENT OF PRESSURE AT REST	
dT - YIELD DISP FACTOR, AXIAL .... (m.)	
dP - YIELD DISP FACTOR, LAT, MAX MULTIPLE OF D	
dQu - YIELD DISP FACTOR, UPWARD, MULTIPLE OF H	
dQu - YIELD DISP FACTOR, UP, MAX MULTIPLE OF D	
dQd - YIELD DISP FACTOR, DOWN, MULTIPLE OF D	
THERMAL EXPANSION COEFFICIENT xE-6 (L/L/deg C)	11.2131
TEMPERATURE CHANGE, Install-Operating (deg C)	

OK   Cancel

Intergraph CAS   Help Facility

GAMMA — SOIL DENSITY (kg/cu.m.

Enter the dry density of the soil on a per unit volume basis.
Some typical soil densities are:

```
        Soil                        Density
        Clay              4.33E-2 lb/cu.in.     1.200E-3 kg/cu.cm.
Very Loose Sand        <= 5.79E-2 lb/cu.in.  <= 1.606E-3 kg/cu.cm.
   Loose Sand             6.08E-2 lb/cu.in.     1.686E-3 kg/cu.cm.
  Medium Sand             6.48E-2 lb/cu.in.     1.797E-3 kg/cu.cm.
   Dense Sand             6.66E-2 lb/cu.in.     1.847E-3 kg/cu.cm.
Very Dense Sand        >= 6.95E-2 lb/cu.in.  >= 1.928E-3 kg/cu.cm.
```

Phone:(+1)800.766.7701   E-mail: ppmcrm@intergraph.com
Web: https://crmweb.intergraph.com

OK

File Edit View Buried Pipe

	FROM NODE	TO NODE	SOIL MODEL NO.	FROM END MESH	TO END MESH	USER DEFINED LATERAL "K"	ULTIMATE LATERAL LOAD	USER DEFINED AXIAL STIF	ULTIMATE AXIAL LOAD	USER DEFINED UPWARD STIF	ULTIMATE UPWARD LOAD	USER DEF DWNWARD
1	10	200	0	☐	☐	0	0	0	0	0	0	0
2	200	400	0	☐	☐	0	0	0	0	0	0	0

Basic Soil Modeler

Soil Model 1   Of 1   [Add New Soil Model]

Model Number: 2   [Delete This Soil Model]

Soil Model Type: American Lifelines Alliance ▼

Soil Classification: ● Clay   ○ Sand/Gravel

GAMMA PRIME - EFFECTIVE SOIL DENSITY (kg/cu.m.)	
H - BURIED DEPTH TO TOP OF PIPE .... (m.)	
C - SOIL COHESION OF BACKFILL ..... (N./sq.mm.)	
ALPHA - ADHESION FACTOR (CALCULATED IF OMITTED).	
dT - YIELD DISP FACTOR, AXIAL .... (m.)	
dP - YIELD DISP FACTOR, LAT, MAX MULTIPLE OF D	
dQu - YIELD DISP FACTOR, UPWARD, MULTIPLE OF H	
dQu - YIELD DISP FACTOR, UP, MAX MULTIPLE OF D	
dQd - YIELD DISP FACTOR, DOWN, MULTIPLE OF D	
THERMAL EXPANSION COEFFICIENT xE-6 (L/L/deg C)	11.2131
TEMPERATURE CHANGE, Install-Operating (deg C)	

[OK]   [Cancel]

Intergraph CAS   Help Facility

```
        Soil                          Dry Density
        Clay              4.33E-2 lb/cu.in.  <= 1.200E-3 kg/cu.cm.
  Very Loose Sand      <= 5.79E-2 lb/cu.in.  <= 1.606E-3 kg/cu.cm.
      Loose Sand          6.08E-2 lb/cu.in.     1.686E-3 kg/cu.cm.
     Medium Sand          6.48E-2 lb/cu.in.     1.797E-3 kg/cu.cm.
      Dense Sand          6.66E-2 lb/cu.in.     1.847E-3 kg/cu.cm.
  Very Dense Sand      >= 6.95E-2 lb/cu.in.  >= 1.928E-3 kg/cu.cm.

        Soil                     Wet (Buoyant) Density
        Clay              2.73E-2 lb/cu.in.     7.572E-4 kg/cu.cm.
  Very Loose Sand      <= 3.62E-2 lb/cu.in.  <= 1.005E-3 kg/cu.cm.
      Loose Sand          3.80E-2 lb/cu.in.     1.055E-3 kg/cu.cm.
     Medium Sand          4.05E-2 lb/cu.in.     1.123E-3 kg/cu.cm.
      Dense Sand          4.17E-2 lb/cu.in.     1.155E-3 kg/cu.cm.
  Very Dense Sand      >= 4.35E-2 lb/cu.in.  >= 1.206E-3 kg/cu.cm.
```

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                         Web: https://crmweb.intergraph.com

[OK]

Uconeer - Units Conversion for Engineers
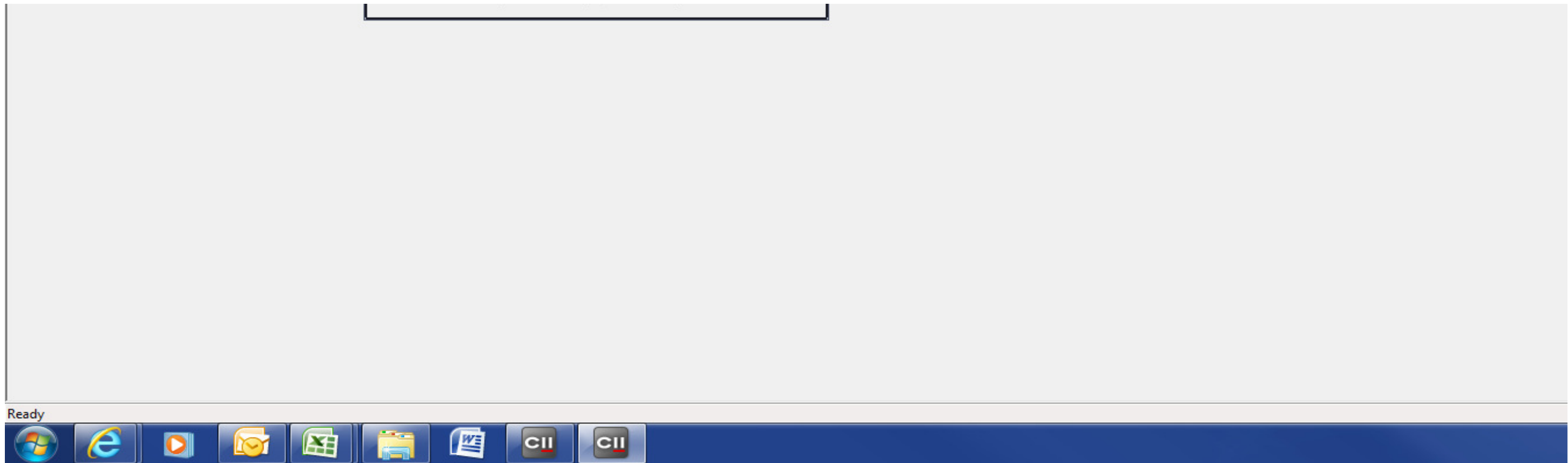
Sugar Engineers' Library

Technical Information
Material Properties
Industry News
Sugar Prices

From	4.33E-2	lb/in³	Paste	Clear
To :	1198.54	kg/m³	Copy #	Copy #U

Recently Used Categories

Area
Density + Specific Volume
Energy + Work
Enthalpy
Force
Heat Capacity
Heat Transfer Coefficient
Length + Distance
Mass
Mass Flow Rate
Pressure
Temperature
Thermal Expansion (Volumetric)
Viscosity (Dynamic)
Volume

More...

From	Available Units	To
○	kg/m³	◉
○	g/cm³ (=kg/L)	○
○	g/liter	○
○	lb/ft³	○
◉	lb/in³	○
○	slug/ft³	○
○	m³/kg	○
○	cm³/g (=L/kg)	○
○	ft³/lb	○
○	in³/lb	○
○	liter/g	○
○	ft³/slug	○
○	°API	○
○	SG (H2O 60°F)	○

Swap From / To Units

Result Format

◉ Automatic
○ Fixed Decimals
○ Fixed with Separators
○ Scientific
○ Engineering

Significant Digits 6

Clipboard Contents : (No text data in clipboard)