

**RHODE ISLAND DEPARTMENT OF TRANSPORTATION  
MATERIALS AND QUALITY ASSURANCE  
DENSITY TEST OF SOILS REPORT - SAND CONE METHOD**

Item No: _____	Date: _____
RI Contract No: _____	F.A.P. No: _____
Project: _____	Location: _____

Acceptance                       Independent                       Info Only

Soil Description:	Lab No:
<b>A</b> Theoretical Max Dry Density (lb/ft <sup>3</sup> ): <small>Corrected for oversize, <b>AMDD</b> from Proctor Test T-180</small>	Opt. Moisture (%): <small>From Proctor Test T-180</small>

Test Section (Lot) Details / Notes: \_\_\_\_\_  
\_\_\_\_\_

Station:	Offset:	Approx. Lift Thickness:	Elevation:
Gauge No:	Daily Std:	Density	Moisture:
Density reading from Nuclear Gauge (lbs/ft <sup>3</sup> ):		Moisture reading from Nuclear Gauge (%):	

<b>B</b>	Tare Weight of Pan <sub>1</sub>	lbs (0.01)
<b>C</b>	Weight of Pan <sub>1</sub> plus Excavated Soil Wet:	lbs (0.01)
<b>D</b>	Wet Weight of Excavated Soil: <b>[ C - B ]</b>	lbs (0.01)

Moisture Content Determination

<b>E</b>	Tare Weight of Pan <sub>2</sub>	lbs (0.01)
<b>F</b>	Weight of Pan <sub>2</sub> plus Moisture Specimen Wet:	lbs (0.01)
<b>G</b>	Weight of Pan <sub>2</sub> plus Moisture Specimen Dry:	lbs (0.01)
<b>H</b>	Dry Weight of Moisture Specimen: <b>[ G - E ]</b>	lbs (0.01)
<b>J</b>	Weight of Moisture: <b>[ F - G ]</b>	lbs (0.01)
<b>K</b>	Calculated Field Moisture Content: <b>[ J ÷ H ]</b> <small>Express as decimal</small>	<b>X 100 =</b> % (0.1)

Calculate Dry Density

<b>L</b>	Initial Weight of Sand Cone Apparatus:	lbs (0.01)
<b>M</b>	Final Weight of Sand Cone Apparatus:	lbs (0.01)
<b>N</b>	Cone Correction:	lbs (0.01)
<b>P</b>	Weight of Sand in Hole: <b>[ L - M - N ]</b>	lbs (0.01)
<b>Q</b>	Bulk Density of Sand:	lbs/ft <sup>3</sup> (0.0001)
<b>R</b>	Volume of Hole: <b>[ P ÷ Q ]</b>	ft <sup>3</sup> (0.0001)
<b>S</b>	Calculated Field Dry Density: <b>D ÷ (K+1) ÷ R</b>	lbs/ft <sup>3</sup> (0.1)
	% Theoretical Max Dry Density: <b>[ ( P ÷ A ) x 100 ]</b>	% (0.1)
	Specification:	%

Meets Spec                       Does Not Meet Spec                       Not Applicable

Remarks: _____ _____
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Technician (Print / Sign) \_\_\_\_\_ Date \_\_\_\_\_ Reviewed By (Print / Sign) \_\_\_\_\_ Date \_\_\_\_\_