

Figure 2.5-115—{Plasticity Chart}

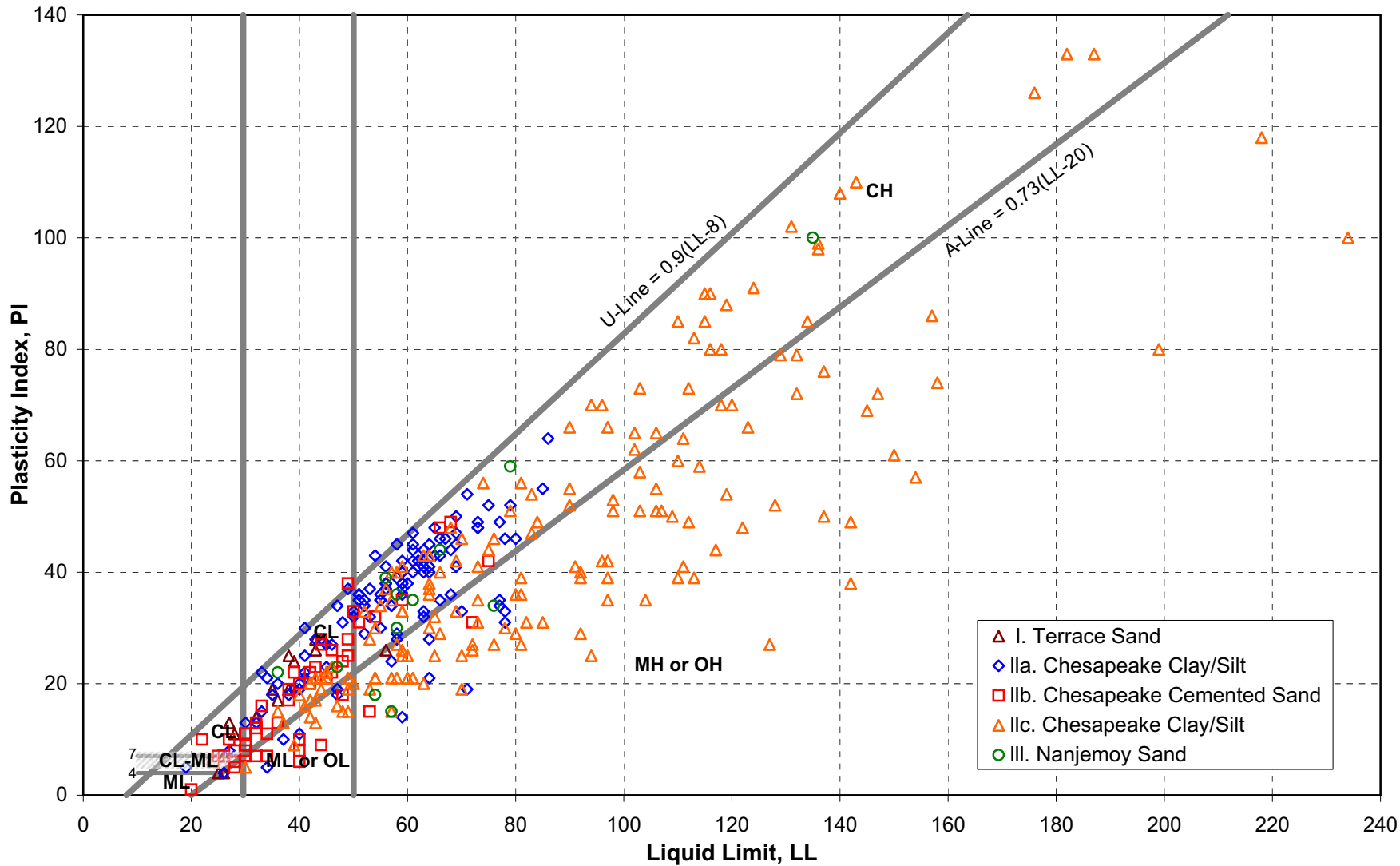


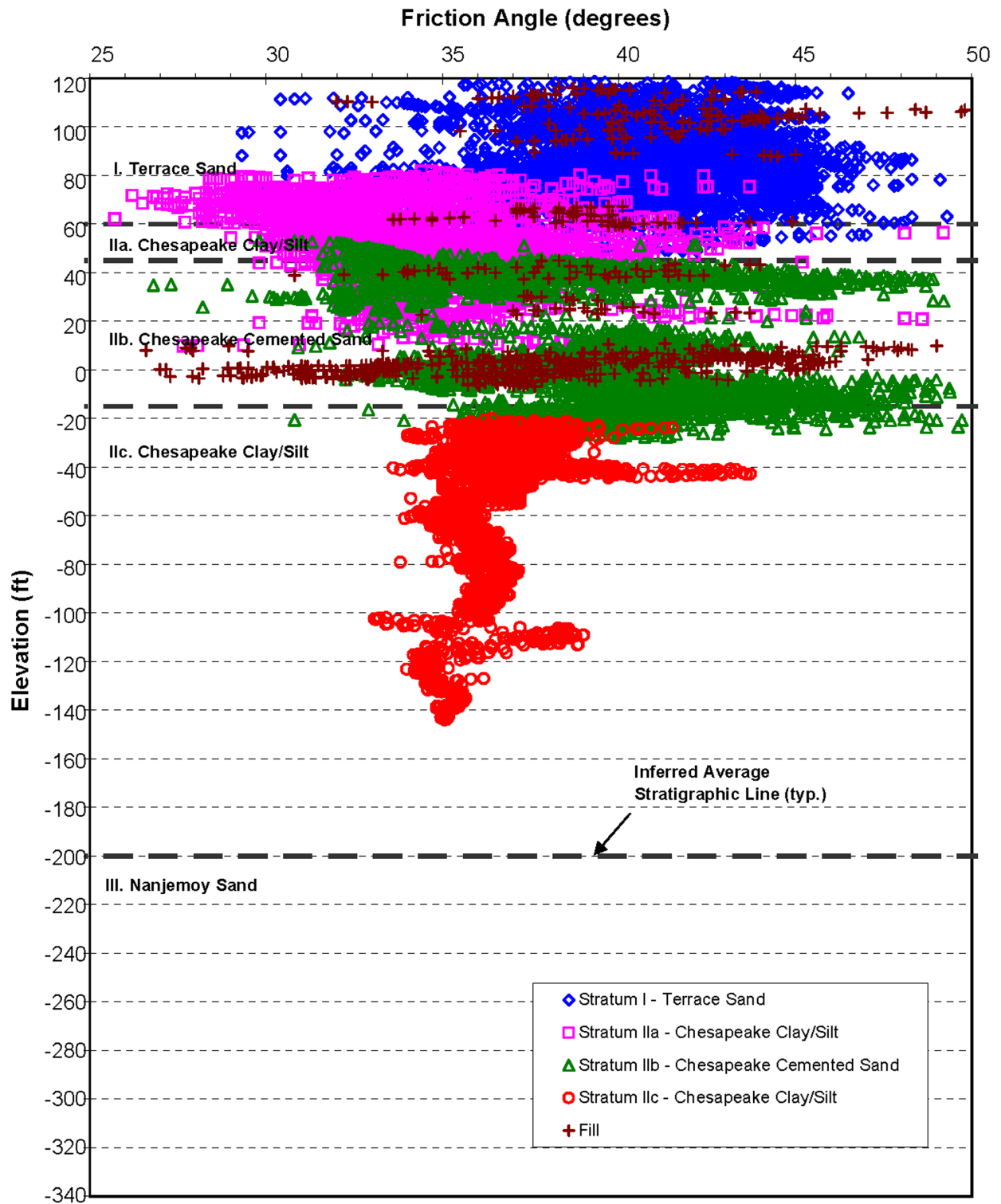
Figure 2.5-116—{Friction Angle Interpretation from CPT Results}

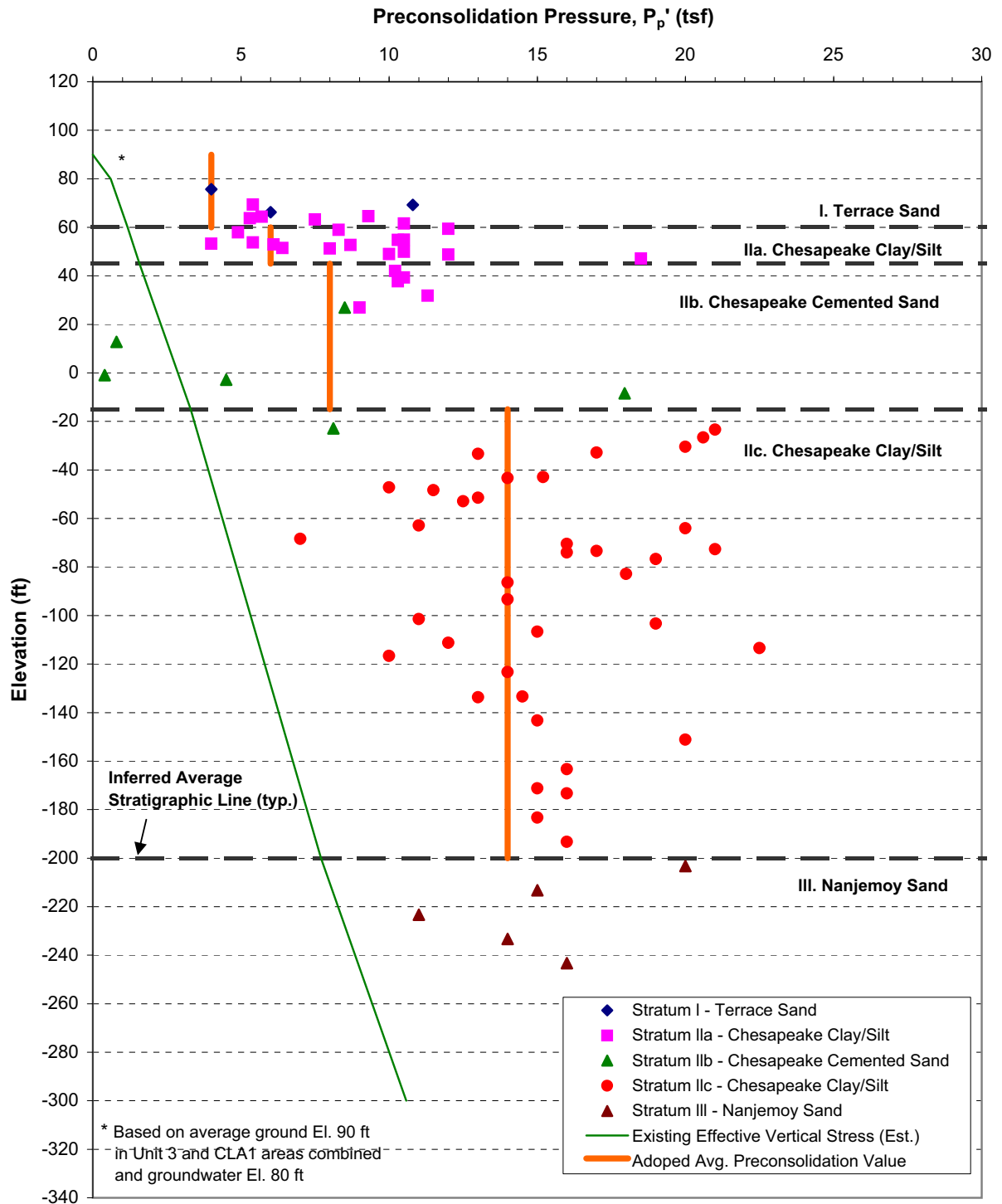
Figure 2.5-117—{Preconsolidation Pressure from Laboratory Testing}

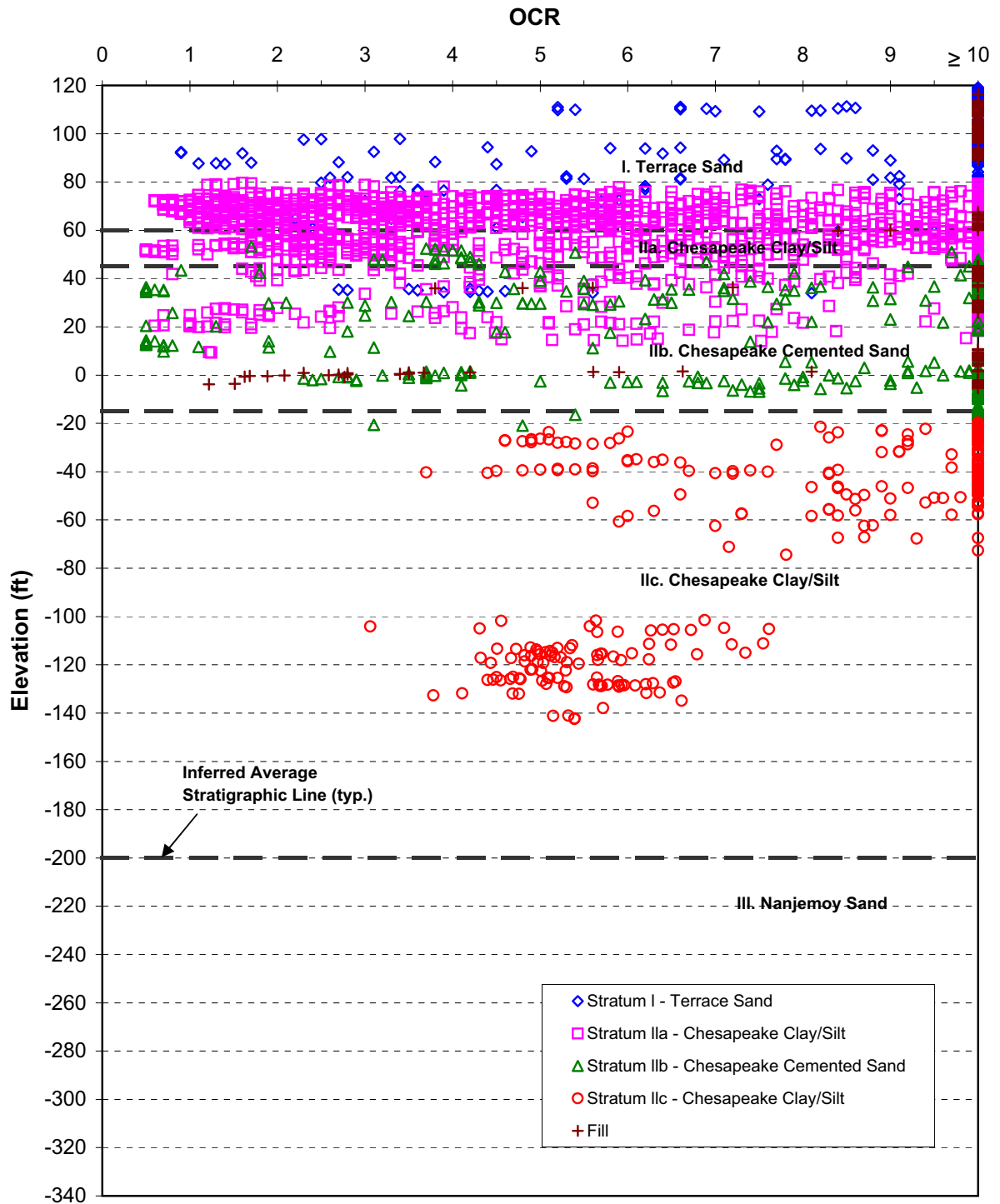
Figure 2.5-118—{OCR Interpretation from CPT Results}

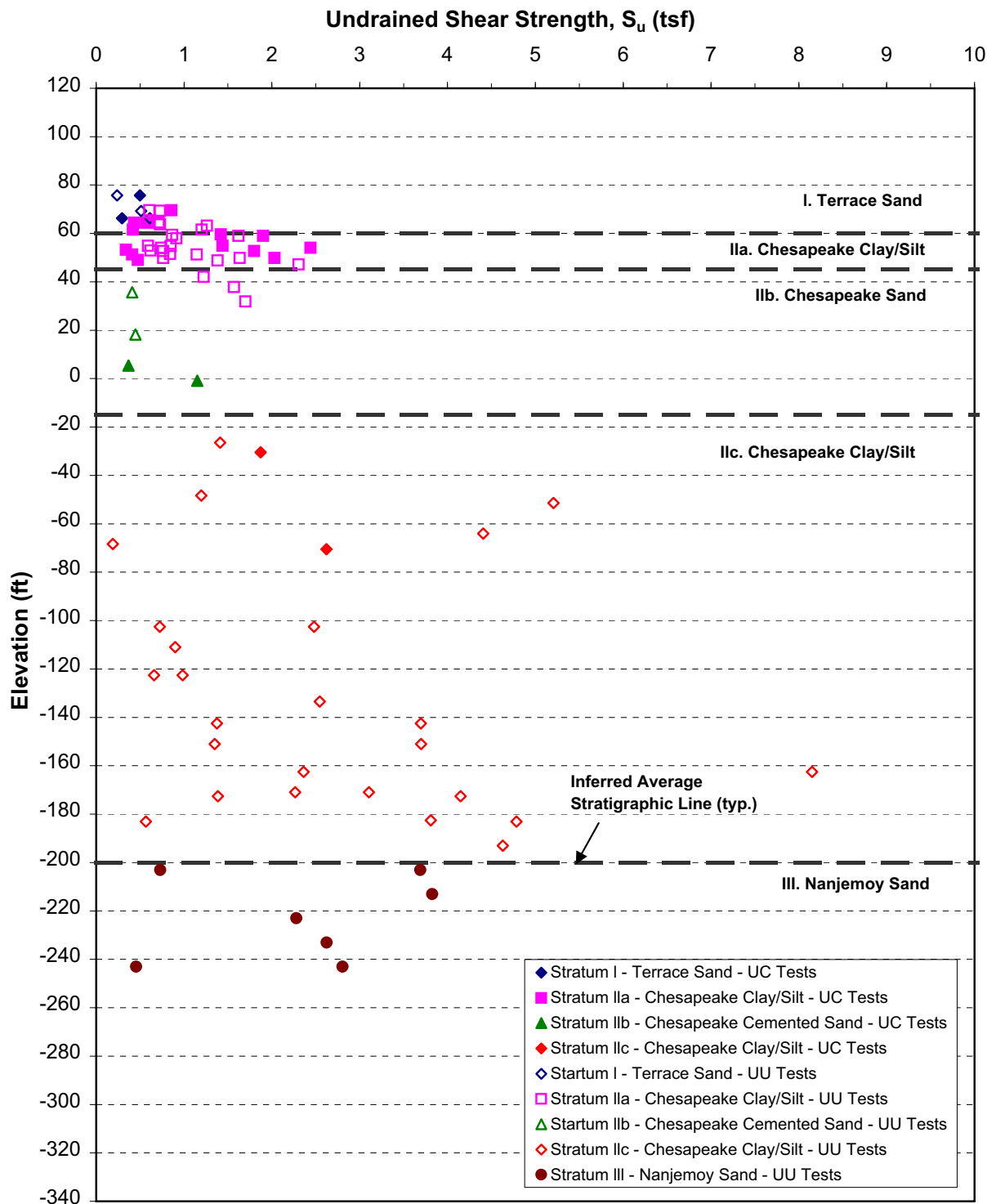
Figure 2.5-119—{Undrained Shear Strength from Laboratory Tests}

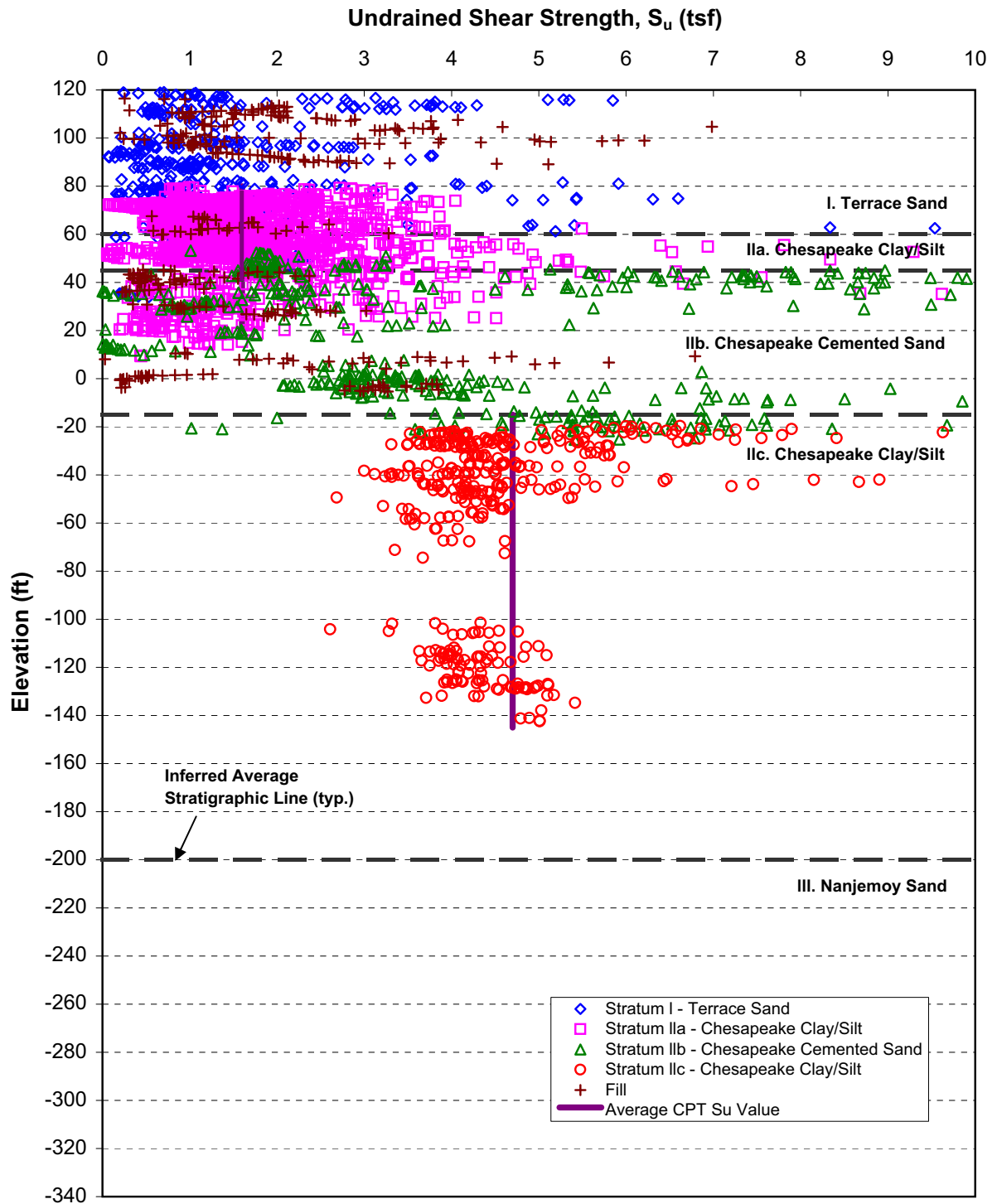
Figure 2.5-120—{Undrained Shear Strength Interpreted from CPT Data}

Figure 2.5-121—{Uphole Seismic Survey Results from UFSAR}

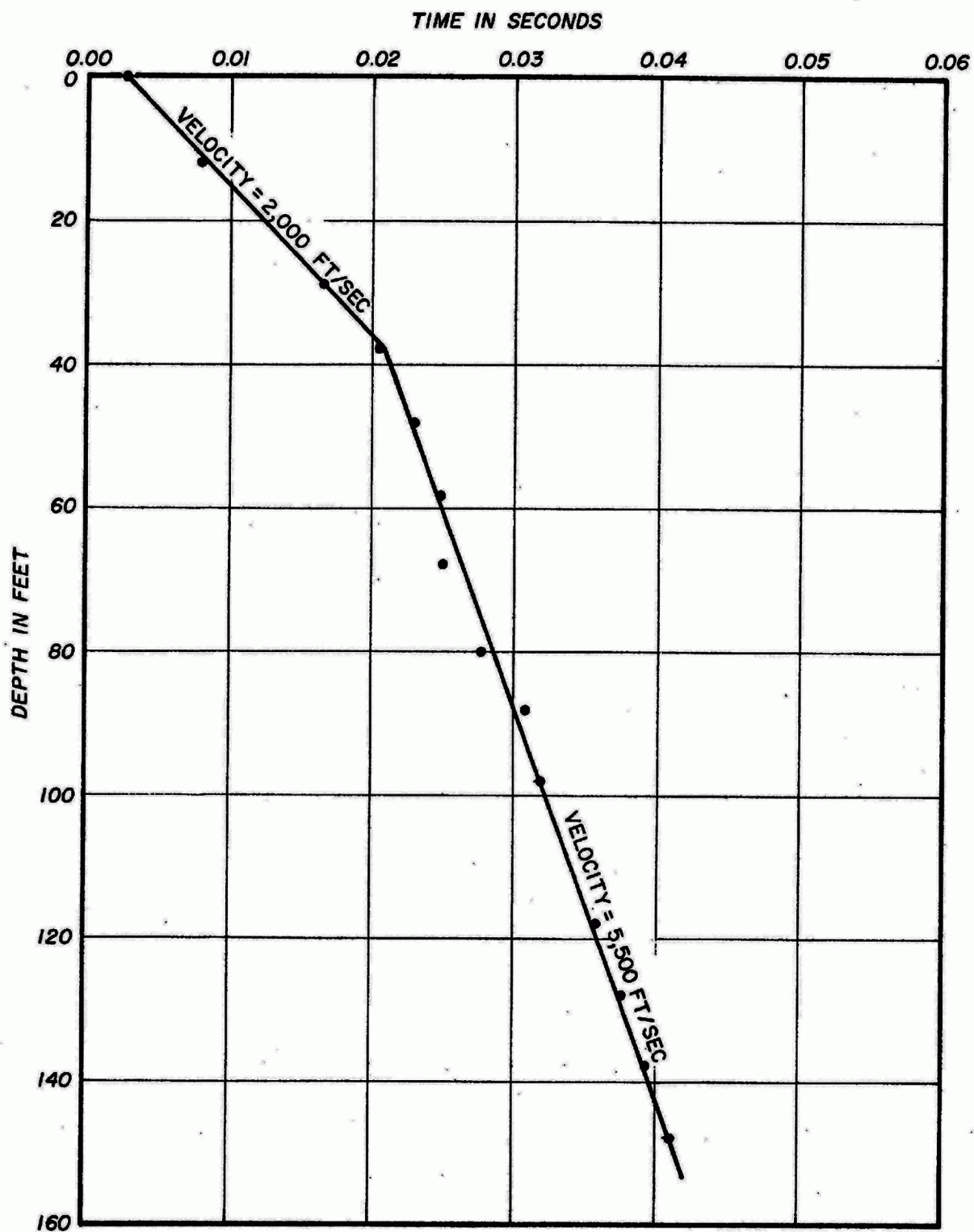
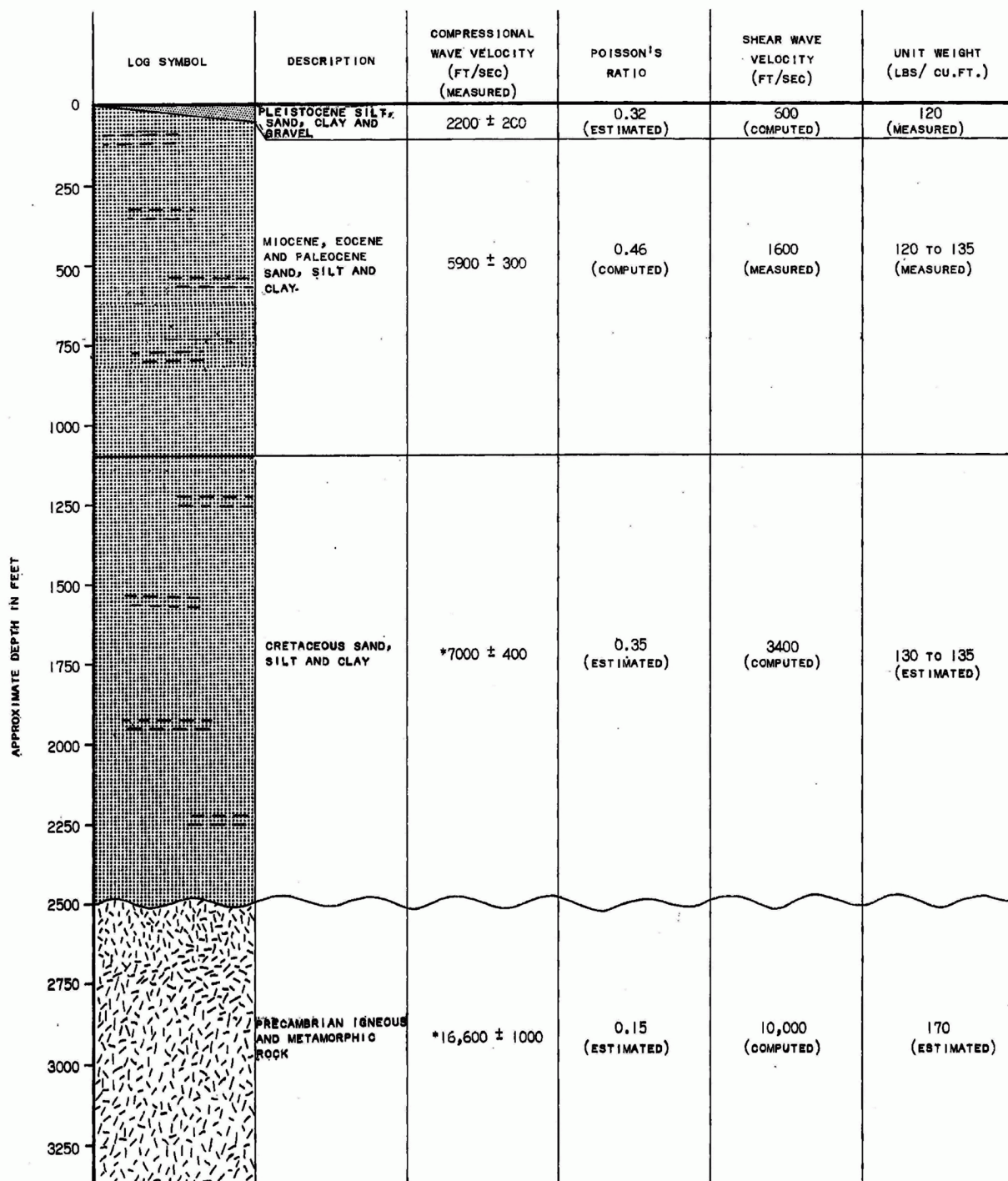


Figure 2.5-122—{Geophysical Model of the Site for Units 1 and 2 from UFSAR}

* TAKEN FROM EWING M. AND WORZEL L. (1948) EXPLOSION
SOUNDS IN SHALLOW WATER, GEOLOGICAL SOCIETY OF AMERICA
MEMOIR 27

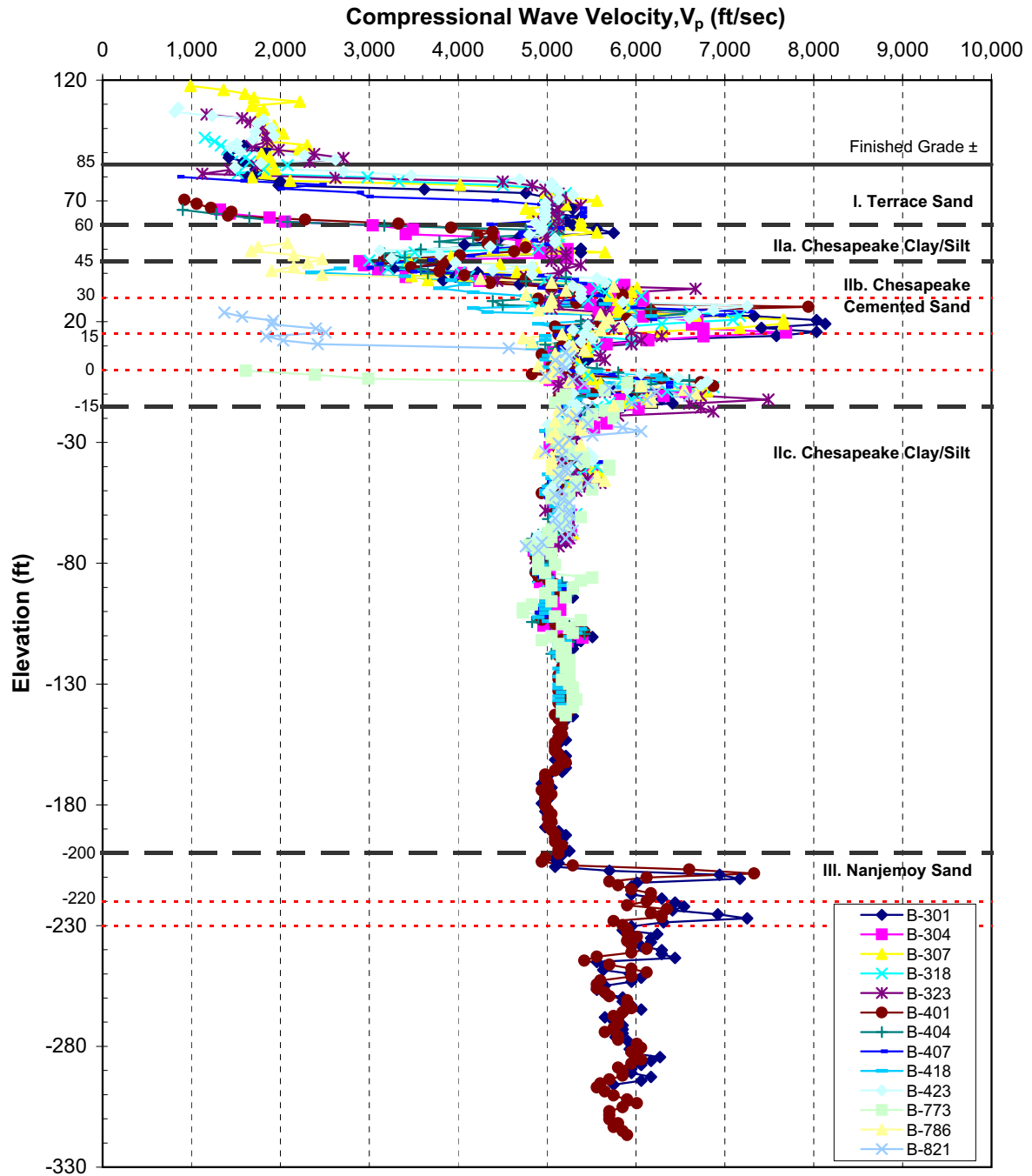
Figure 2.5-123—{ V_p Measurements from Suspension P-S Velocity Logging}

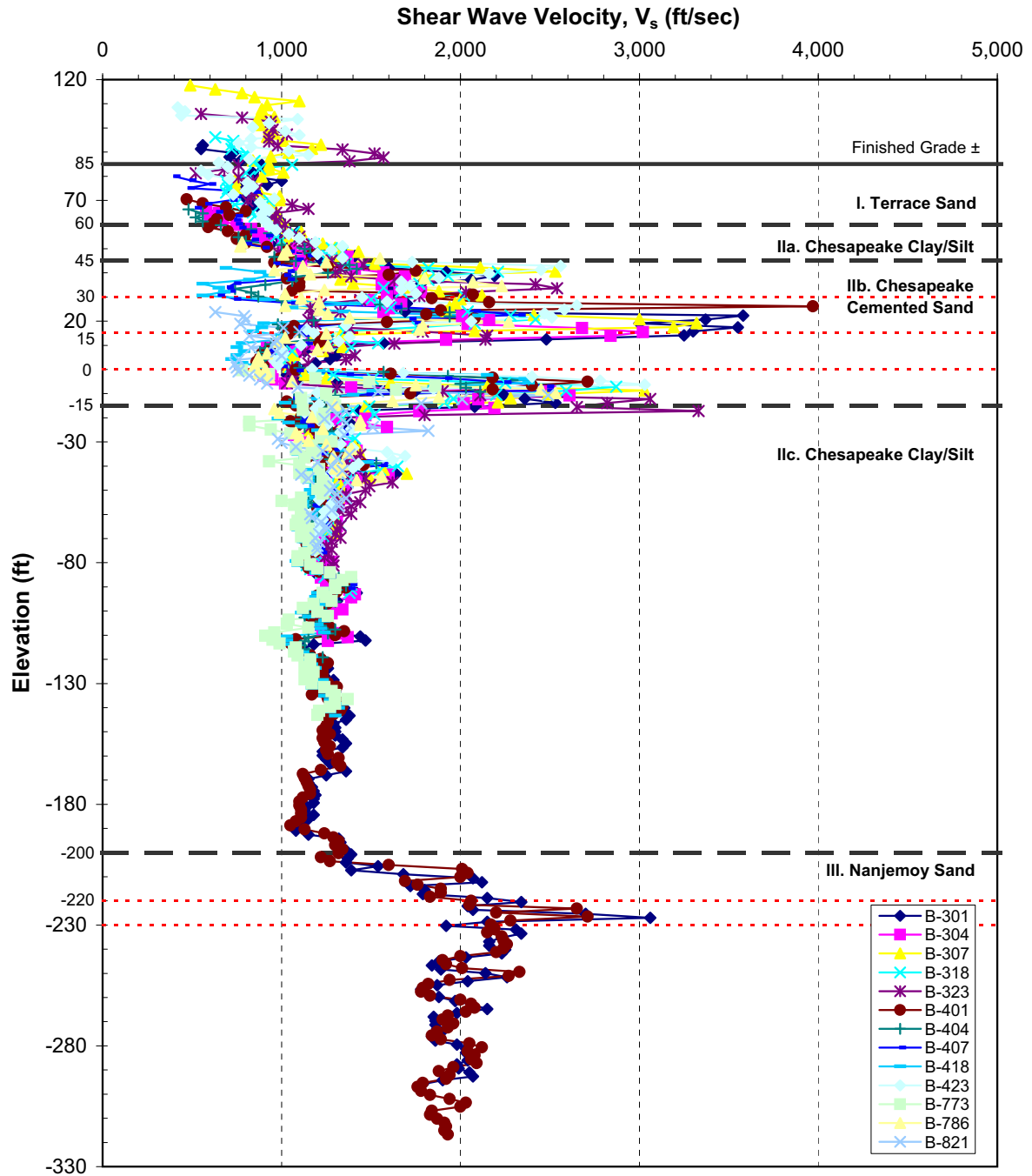
Figure 2.5-124—{ V_s Measurements from Suspension P-S Velocity Logging}

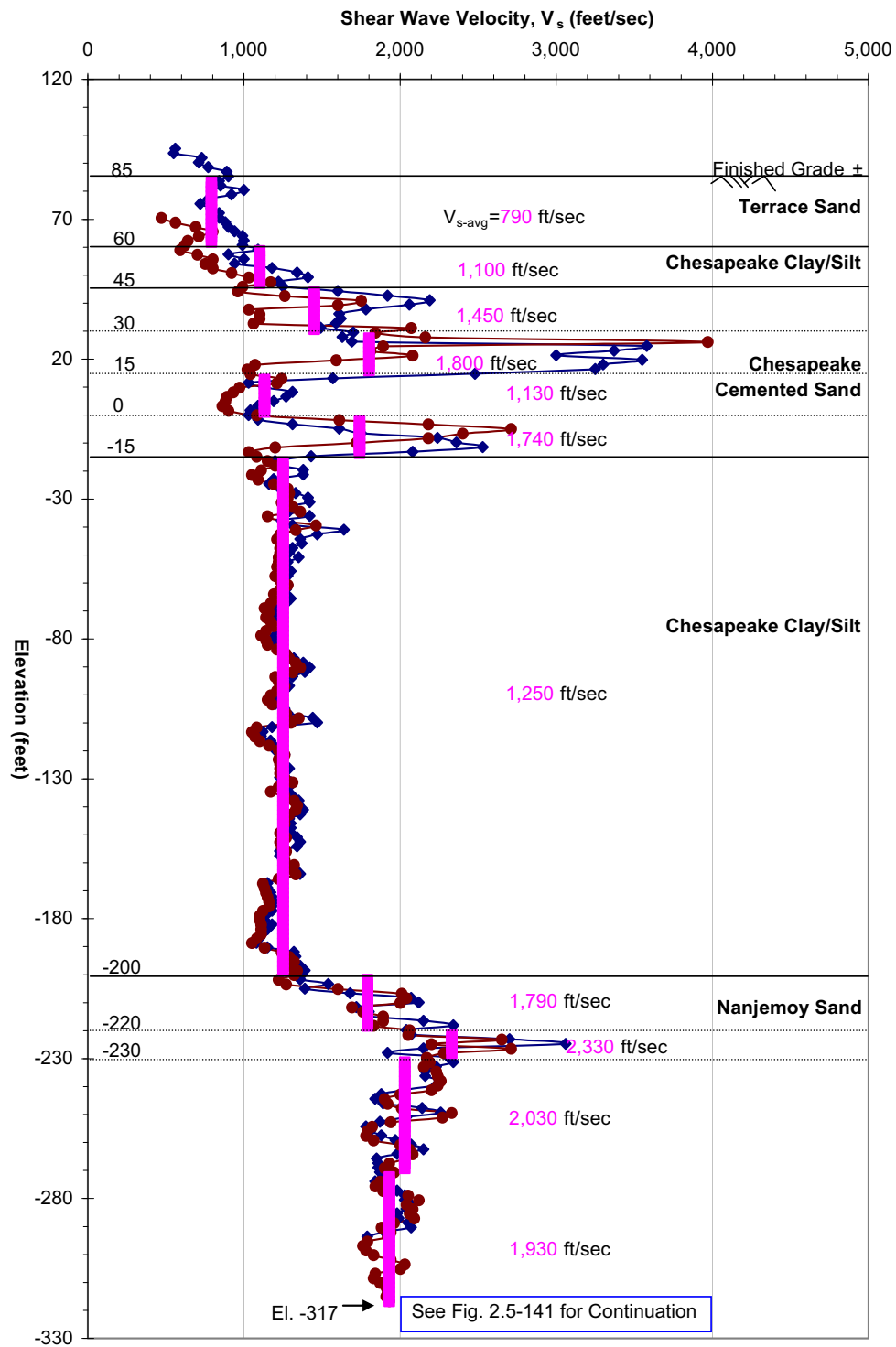
Figure 2.5-125—{Average V_s Measurements from Suspension P-S Velocity Logging}

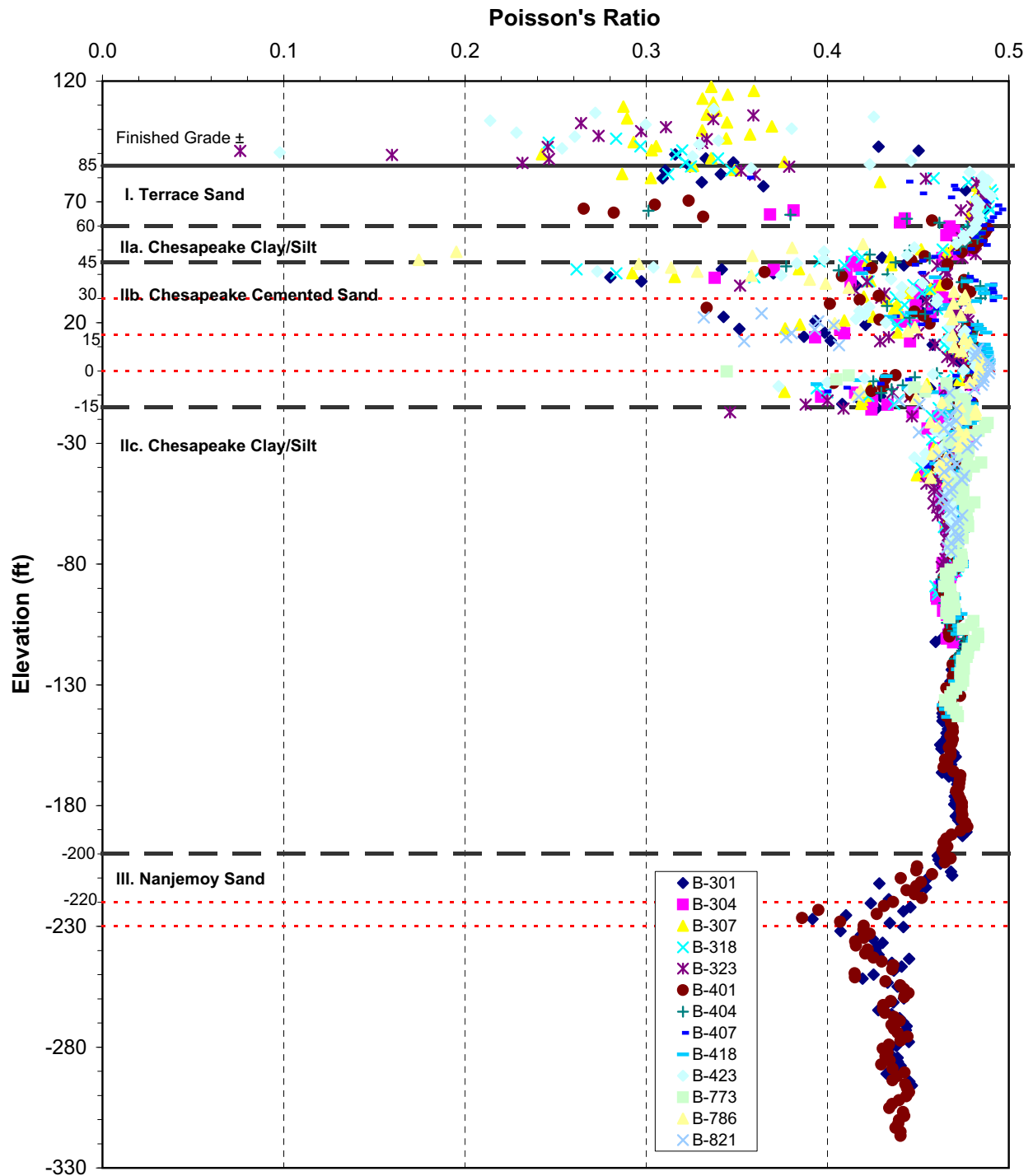
Figure 2.5-126—{Poisson's Ratio from Suspension P-S Velocity Logging}

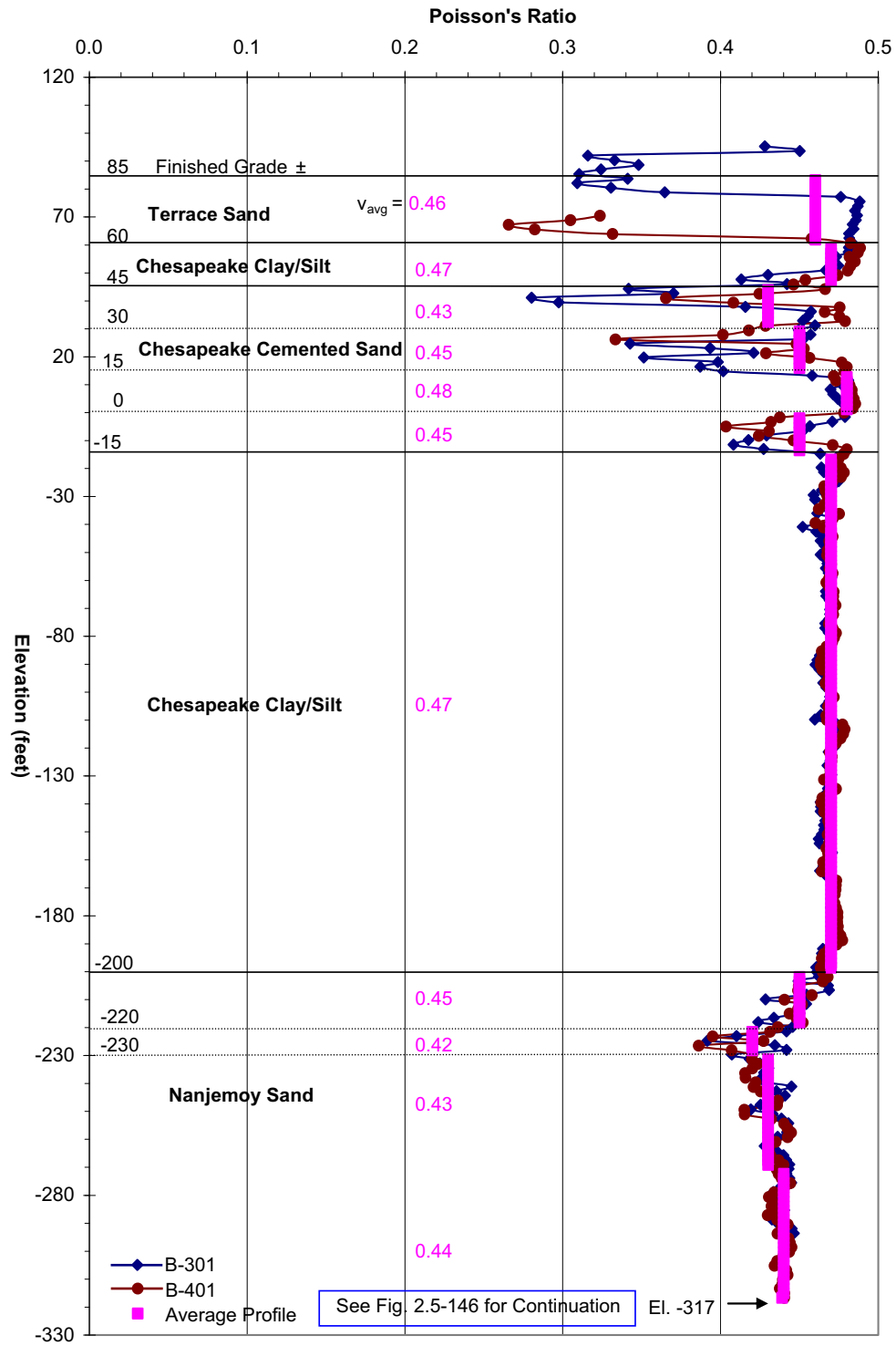
Figure 2.5-127—{Average Poisson's Ratio from Suspension P-S Velocity Logging}

Figure 2.5-128—{Comparison of V_s Measurements from Suspension P-S Velocity Logging and CPT Seismic Tests}

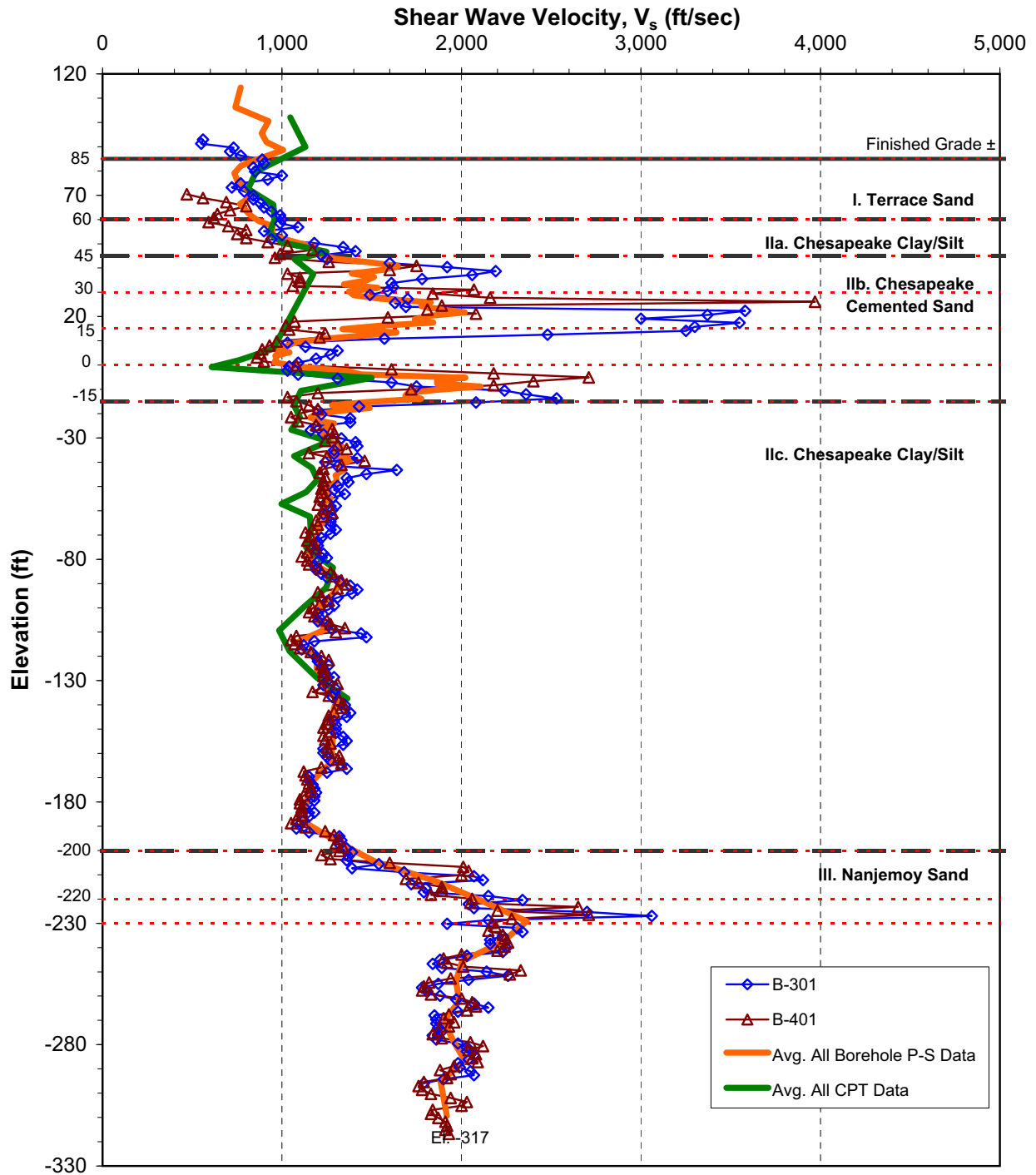


Figure 2.5-129—{Site Grading Plan}

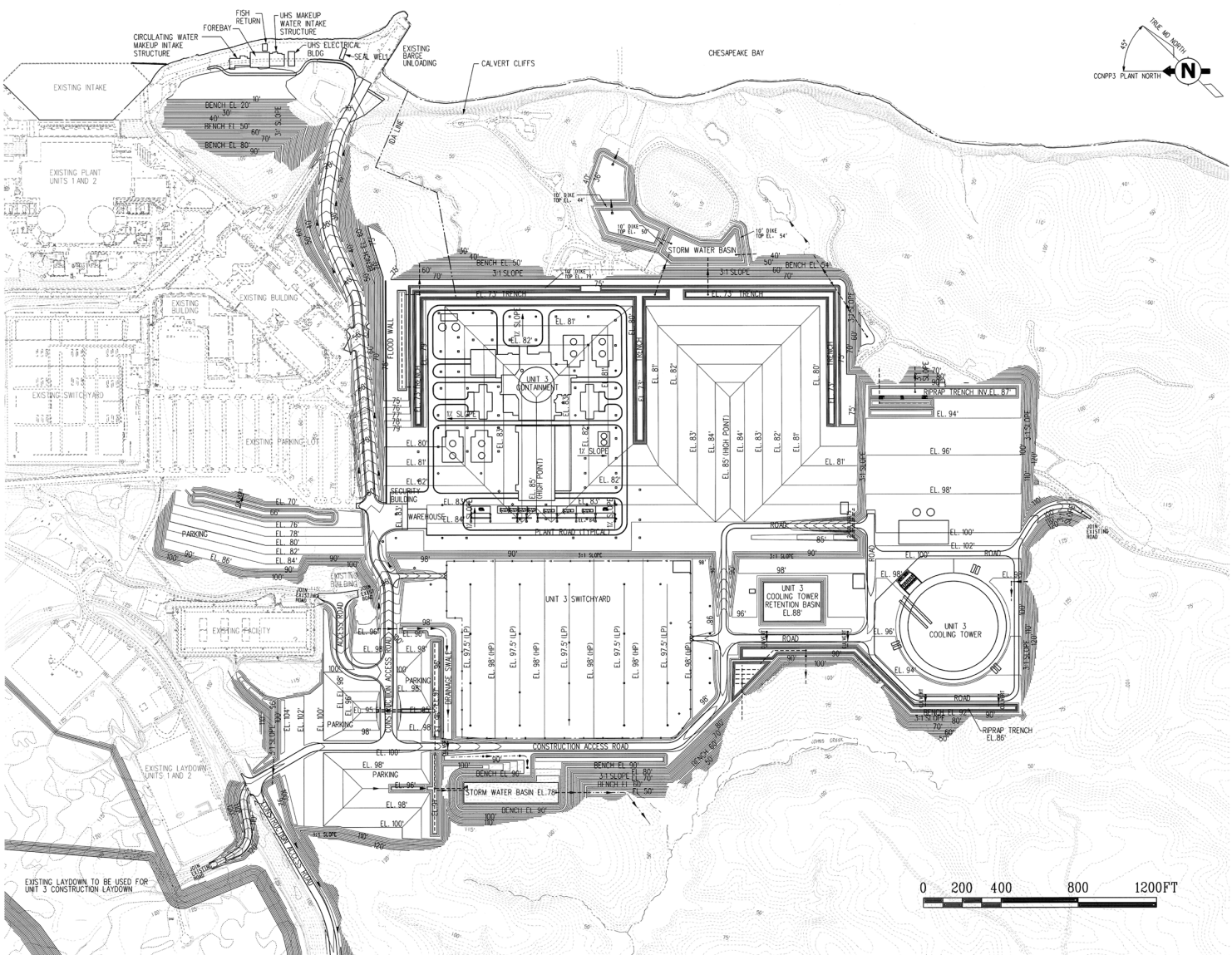


Figure 2.5-130—{Excavation Profile NS-1}

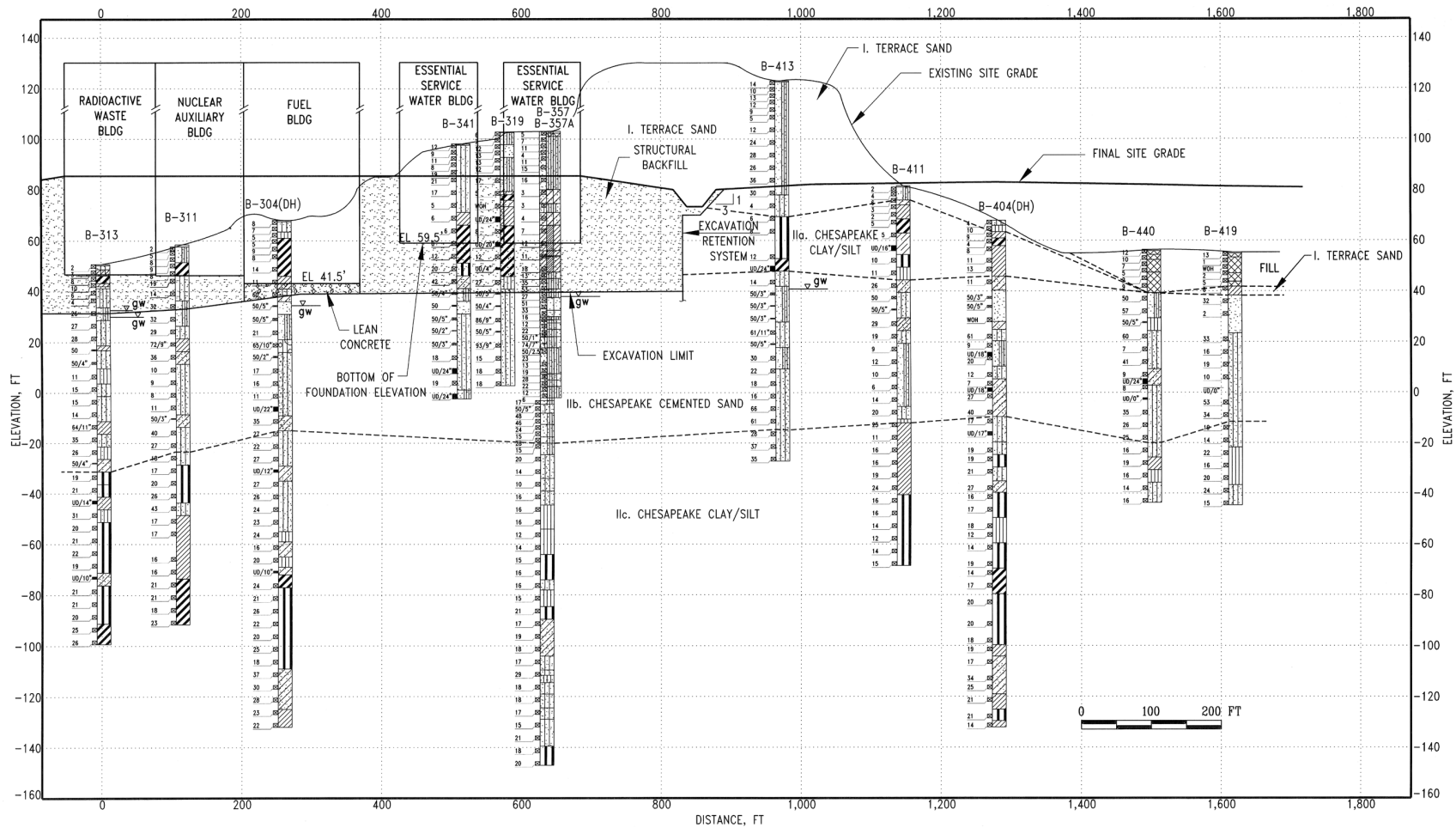


Figure 2.5-131—{Excavation Profile NS-2}

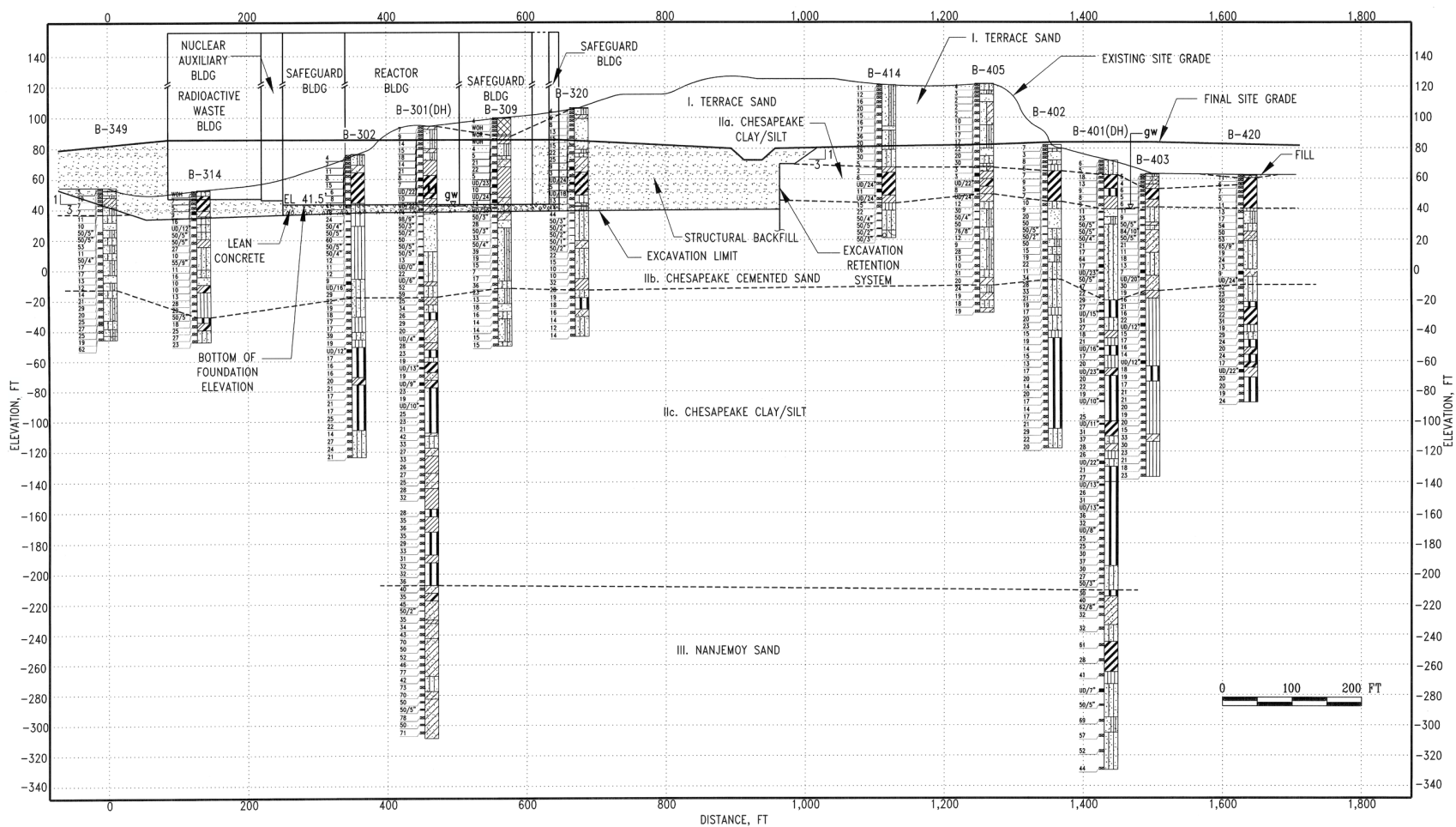


Figure 2.5-132—{Excavation Profile NS-3}

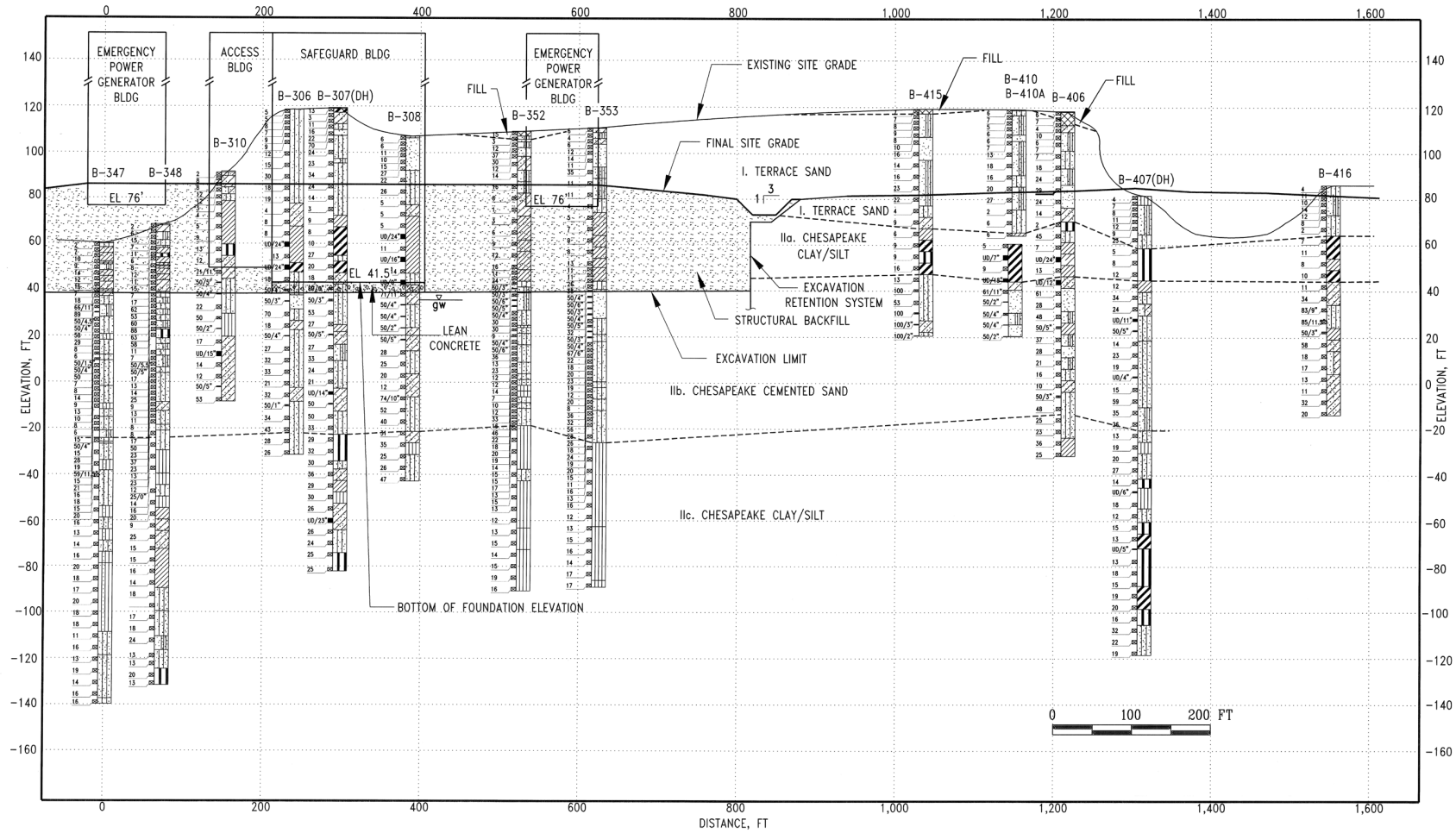


Figure 2.5-133—{Excavation Profile NS-4}

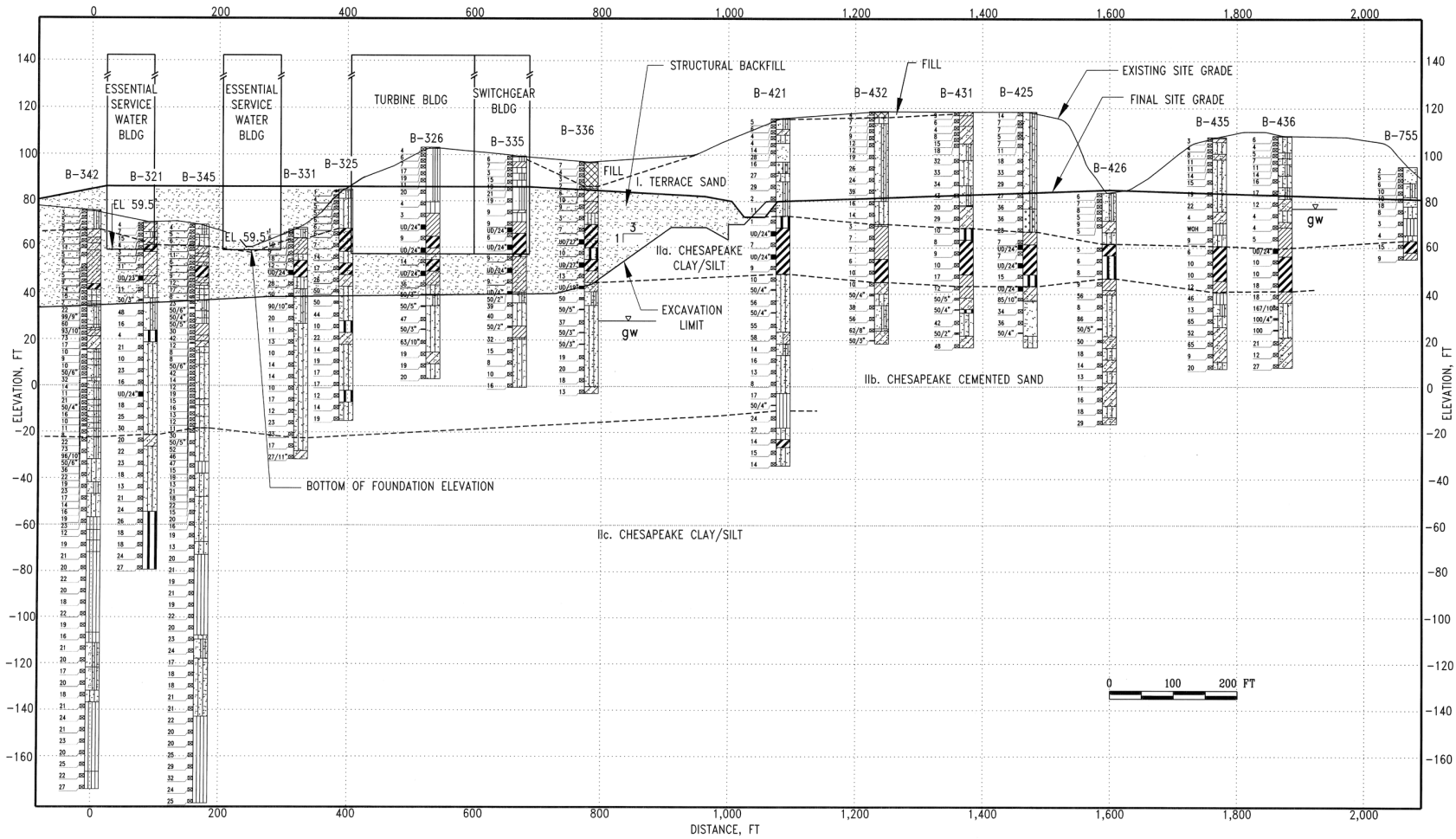


Figure 2.5-134—{Excavation Profile IDP1}

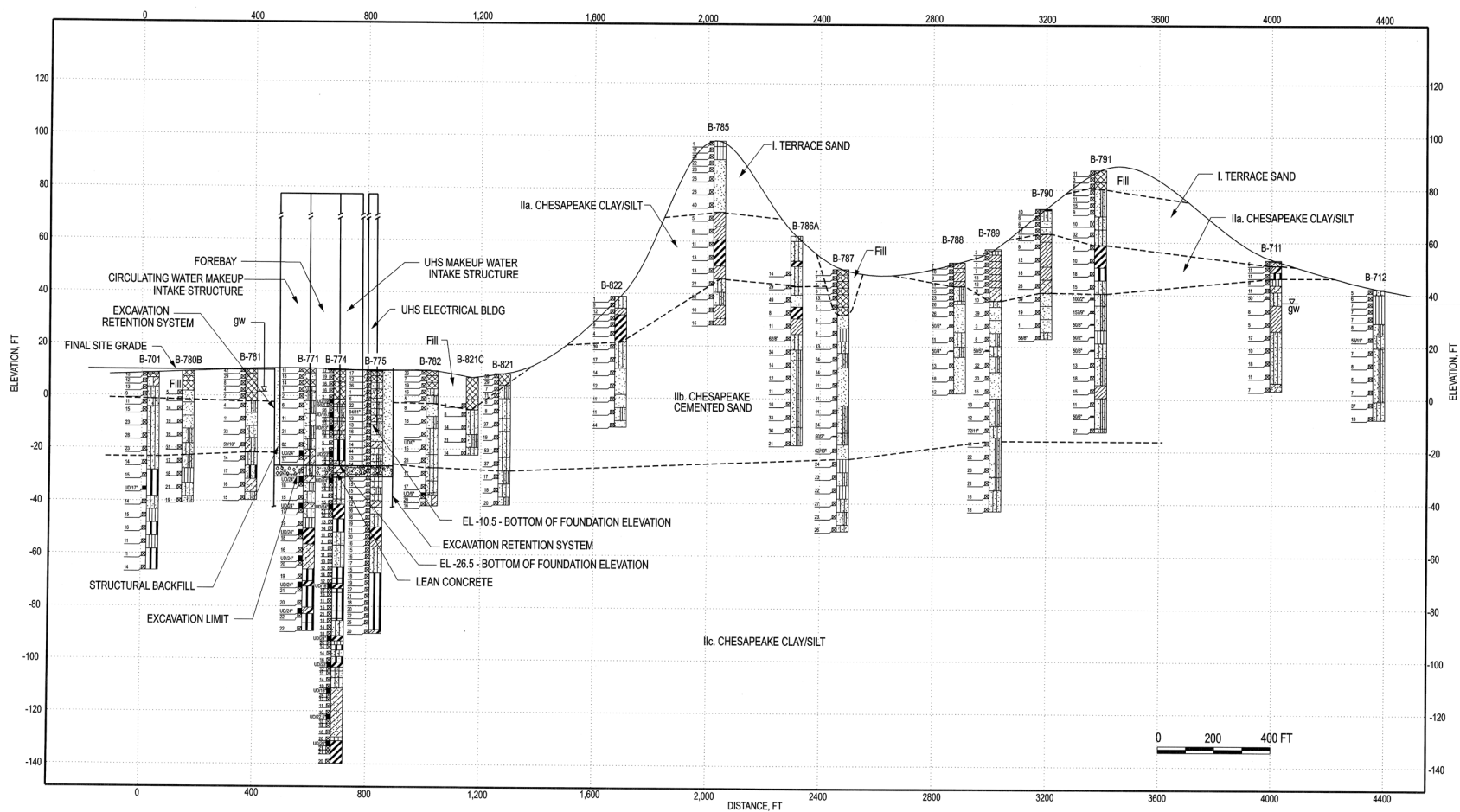


Figure 2.5-135—{Elevation Contours of Top of Stratum IIb Cemented Sand}

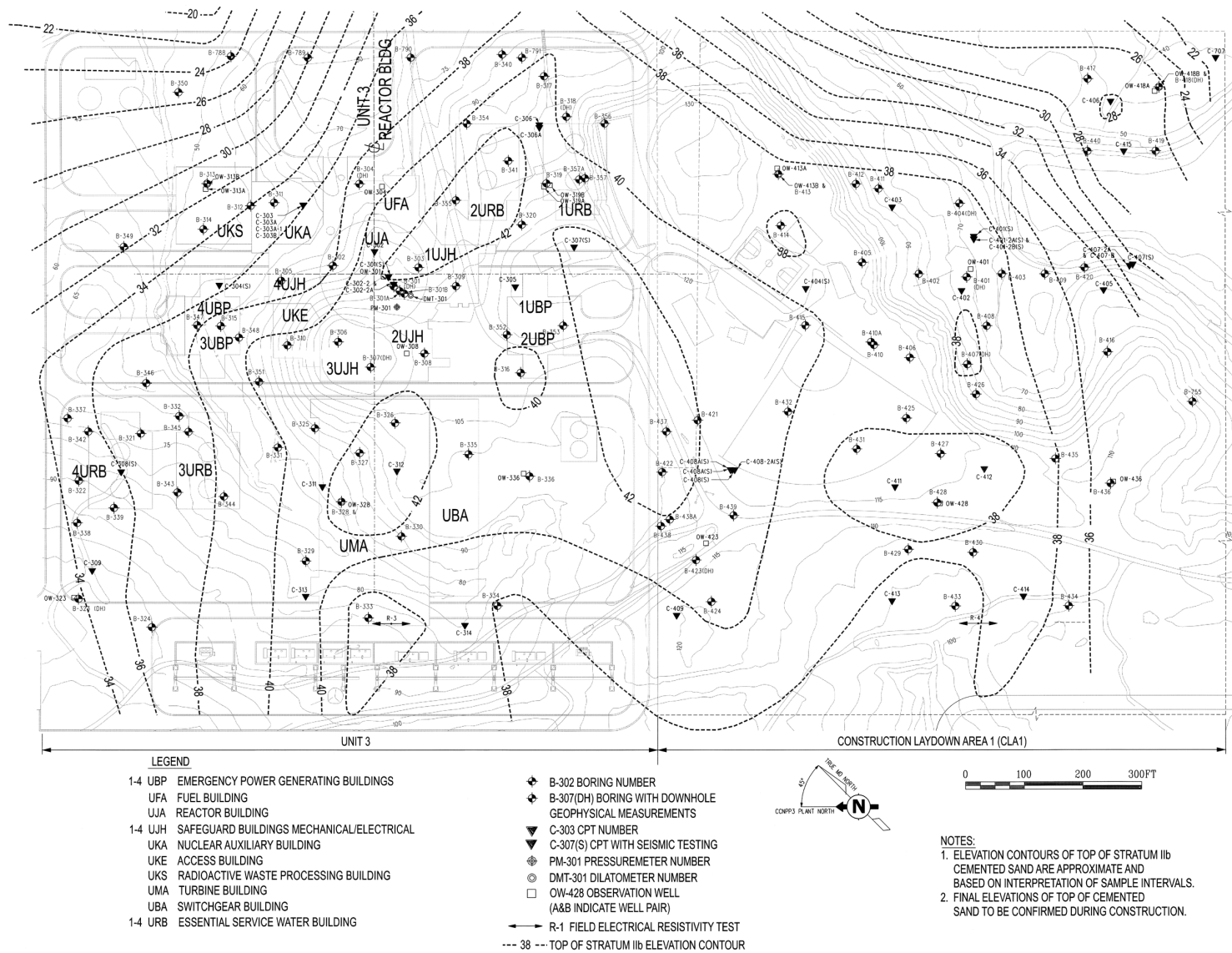


Figure 2.5-136—{Proximity of Chester and Lexington Park Sites to CCNPP}

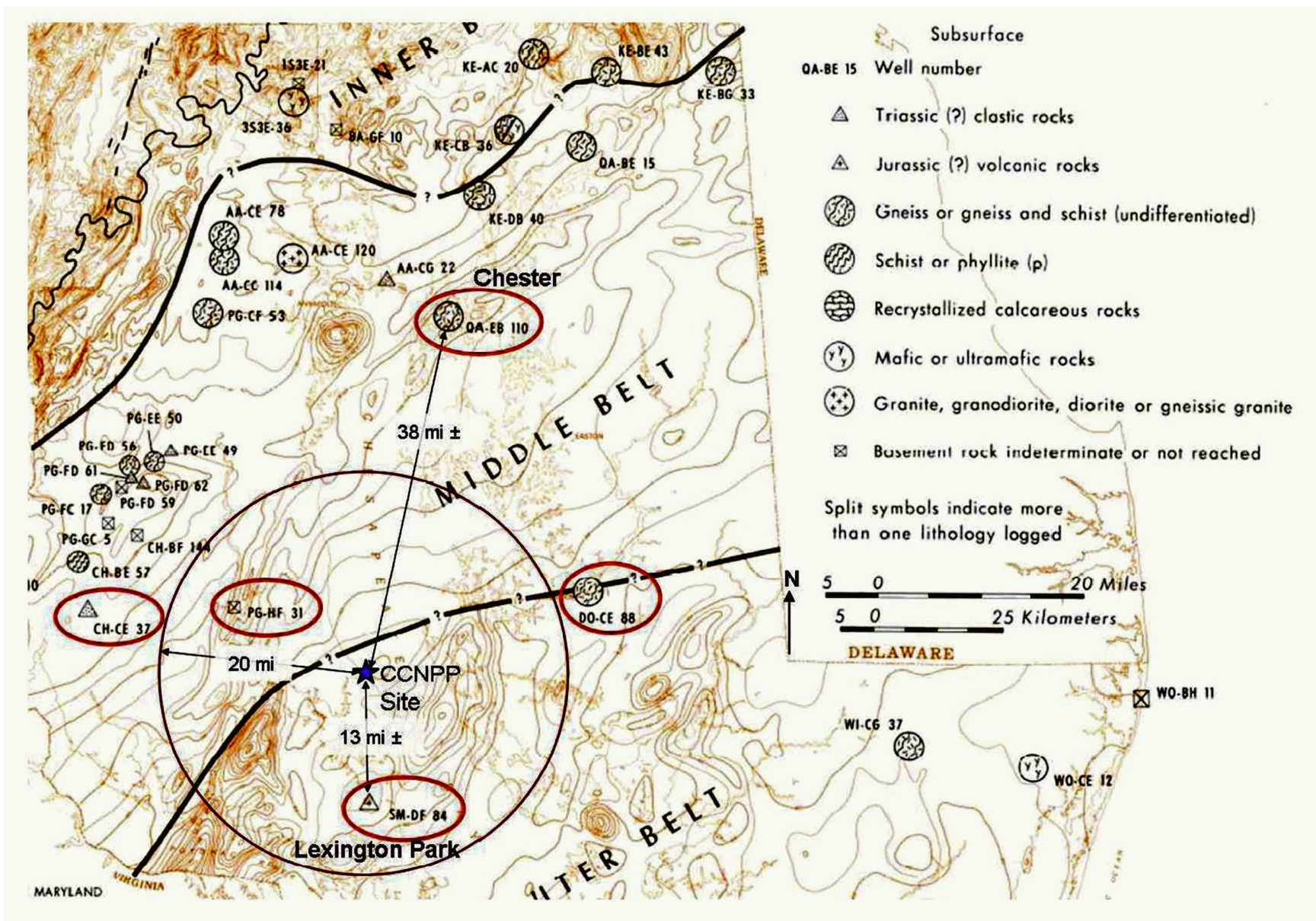


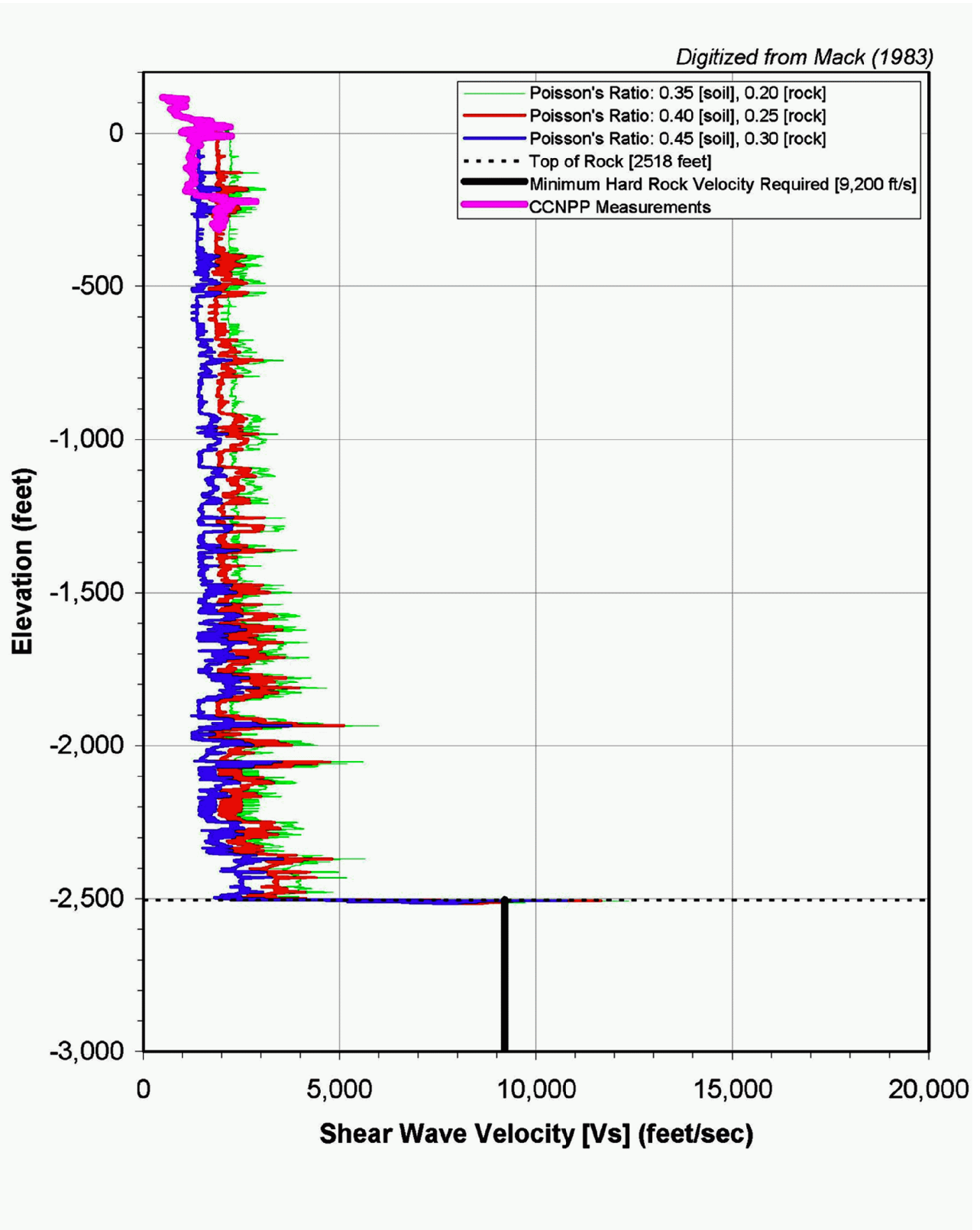
Figure 2.5-137—{ V_s Based on Chester (Kent Island) Measurements}

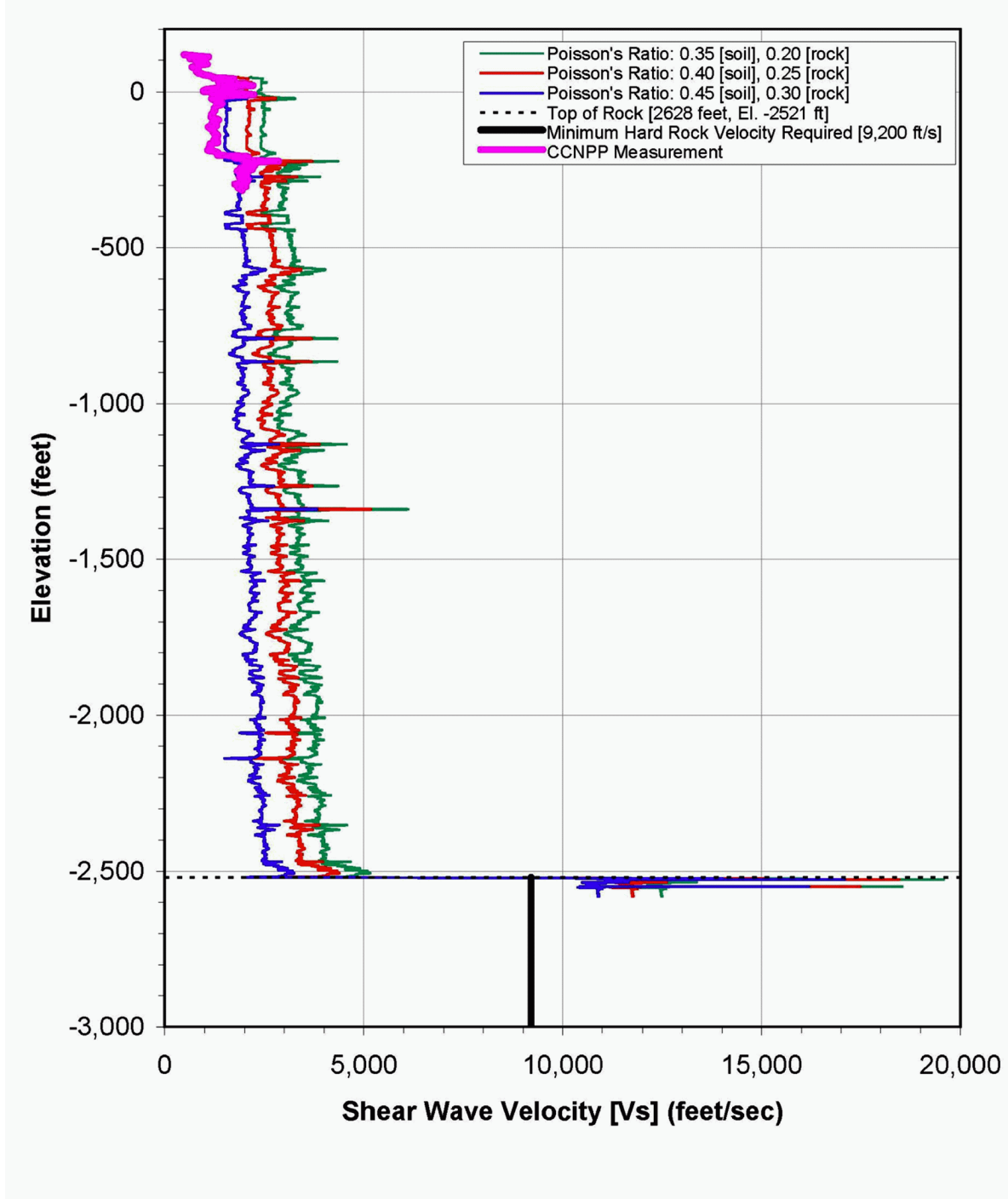
Figure 2.5-138—{ V_s Log Based on Lexington Park Measurements}

Figure 2.5-139—{Smoothed and Averaged V_s Log for Chester and Lexington Park Measurements}

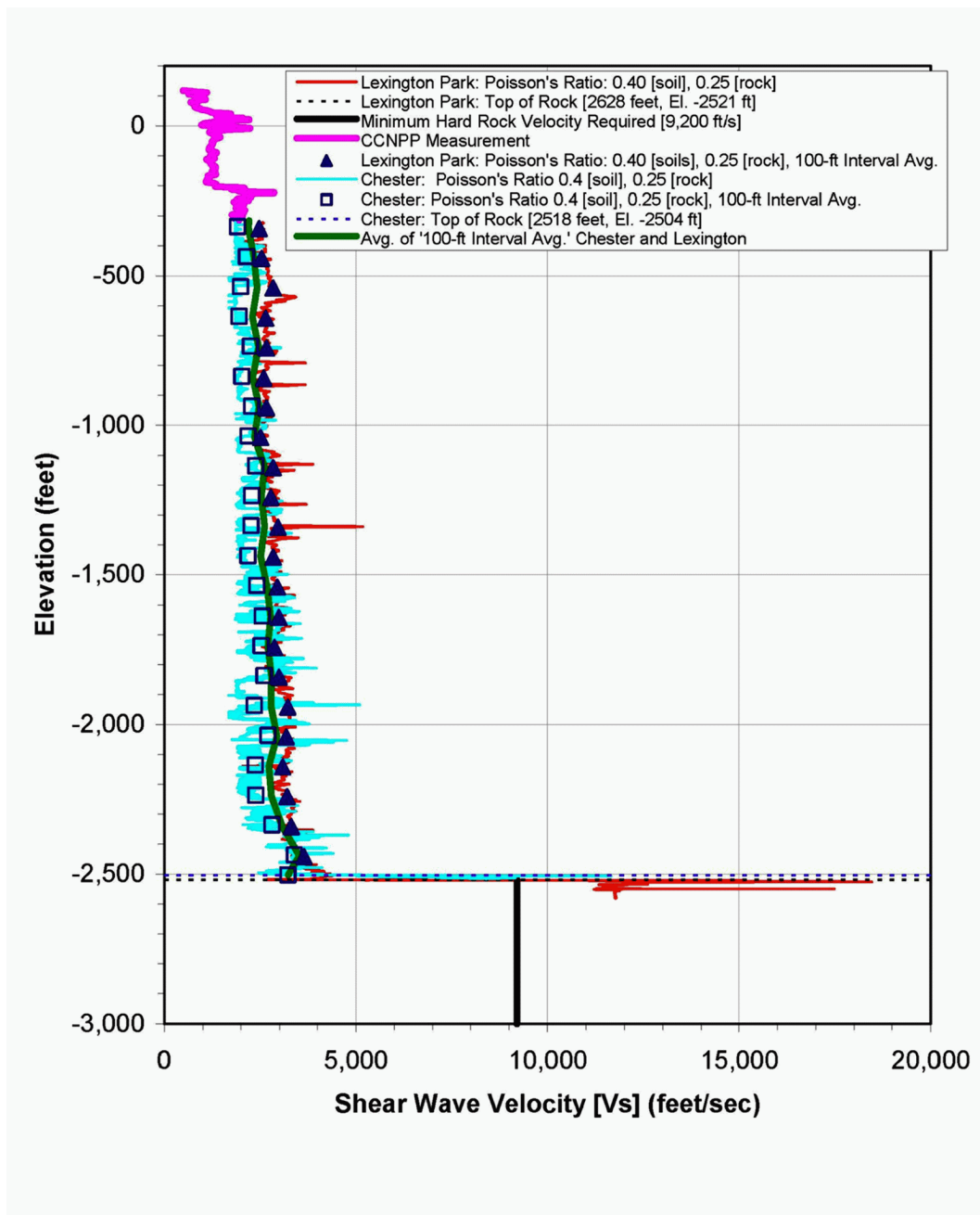


Figure 2.5-140—{Comparison of Average V_s for Chester, Lexington Park, Maryland and Deep measurements in Coastal Plain Soils}

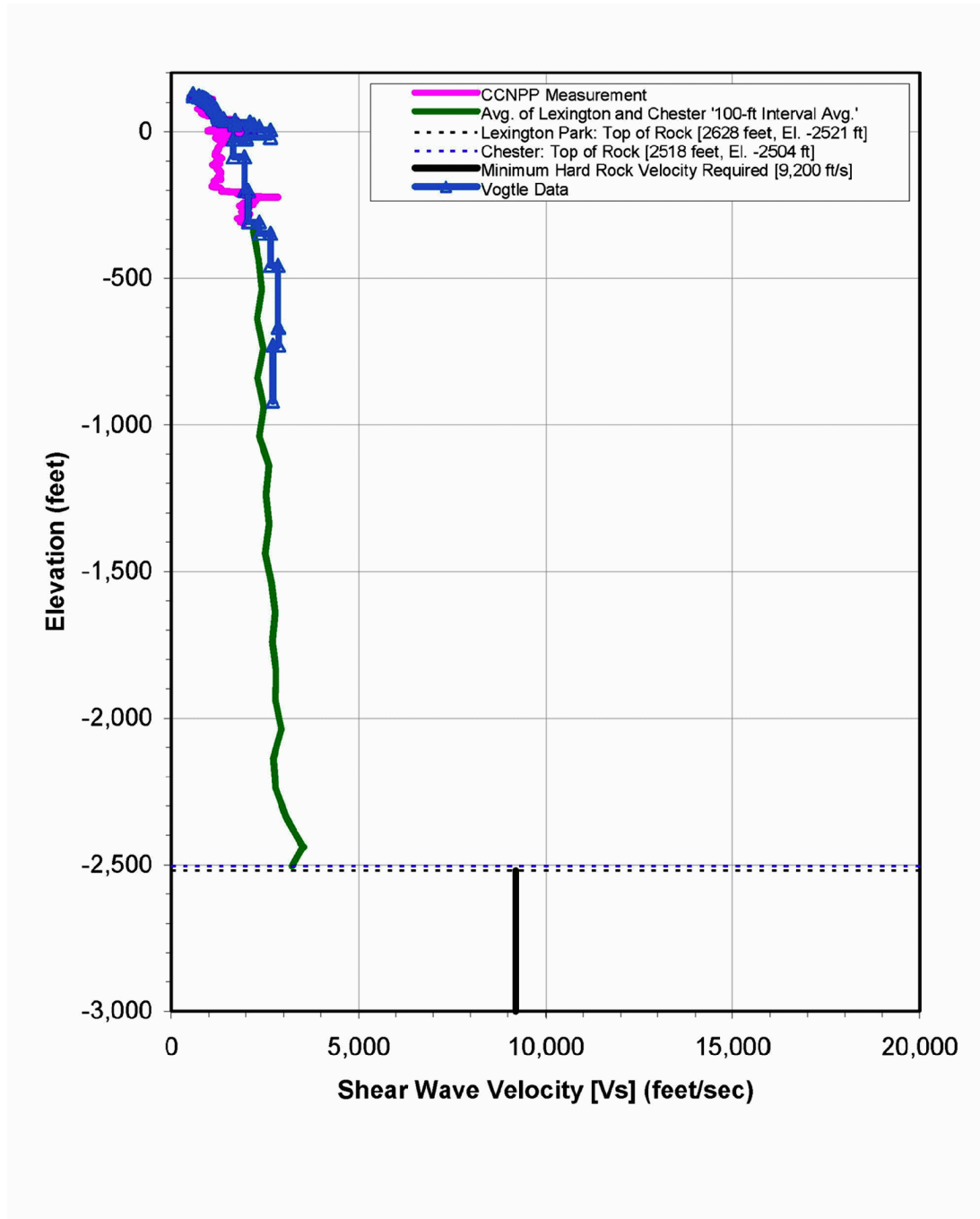


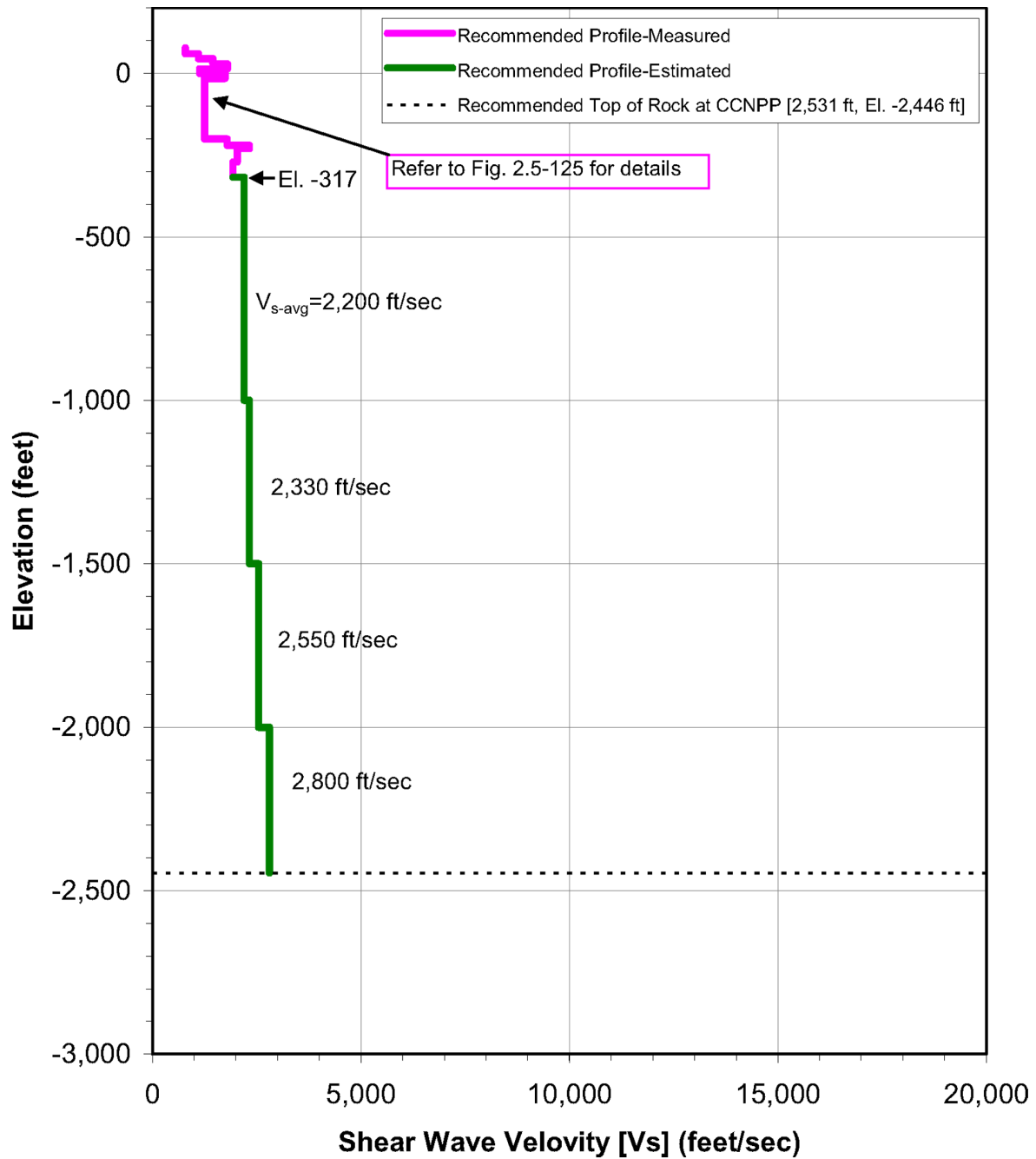
Figure 2.5-141—{Recommended V_s Soil Profile at CCNPP Site}

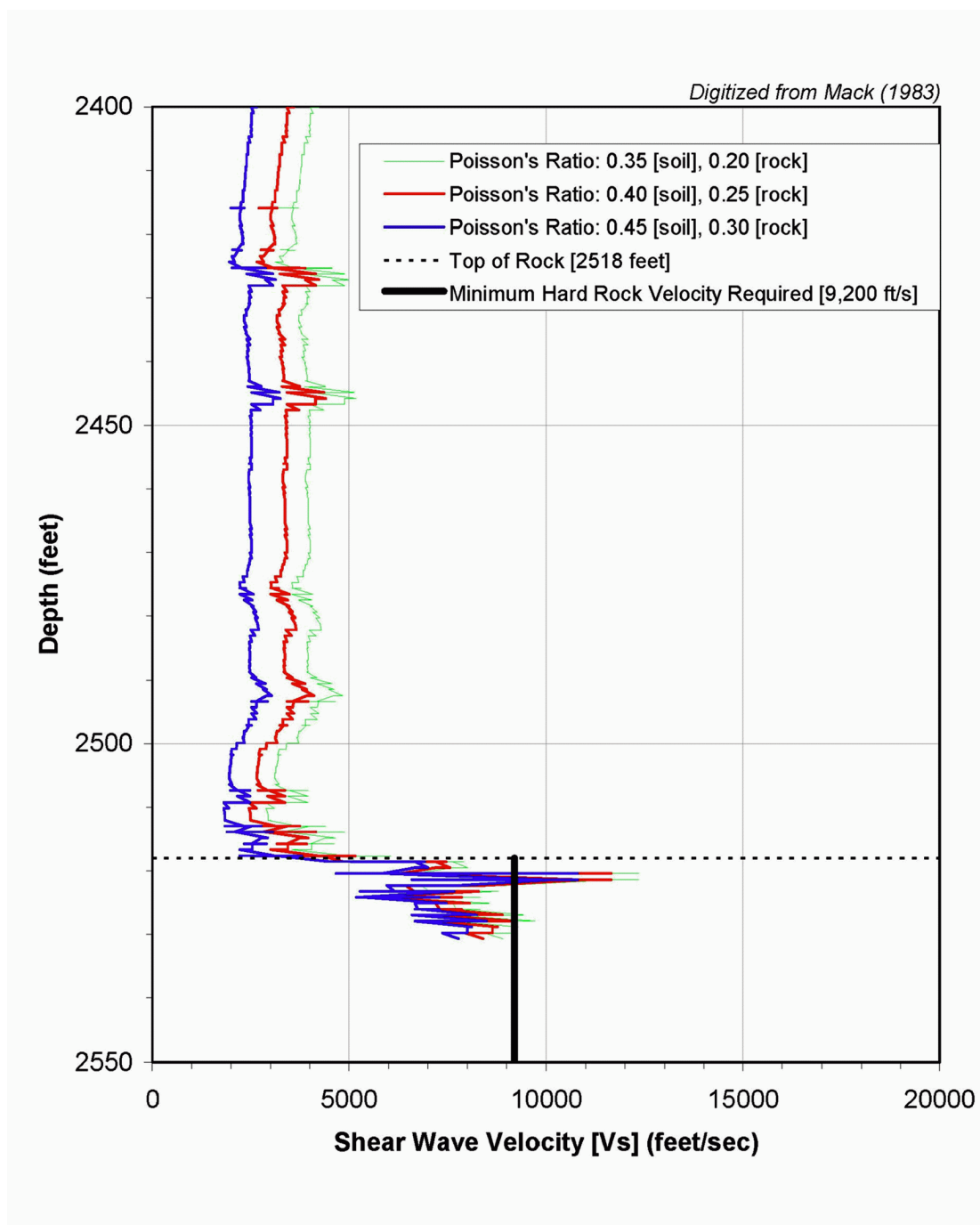
Figure 2.5-142—{Bedrock V_s Log for Chester (Kent Island), Maryland}

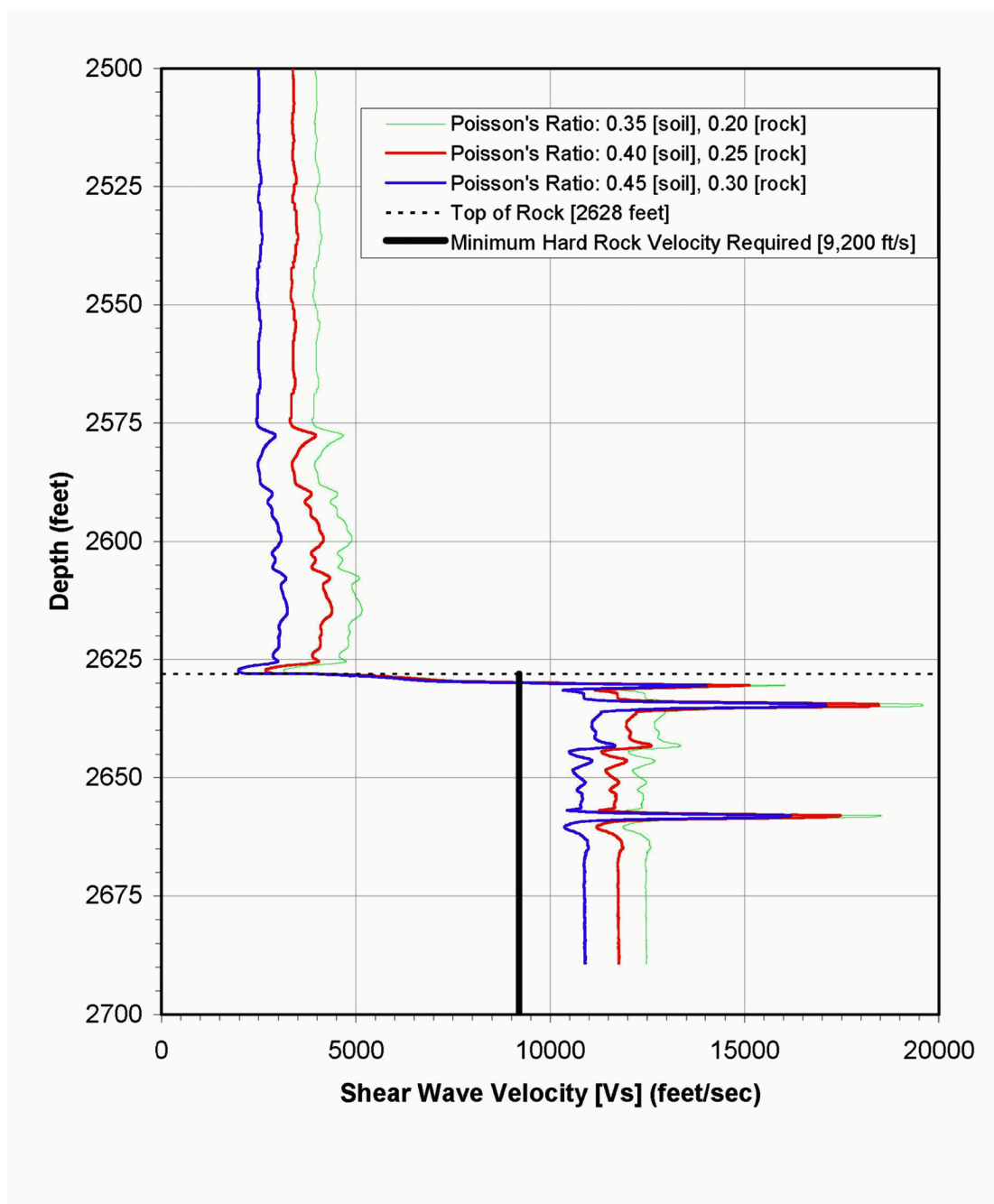
Figure 2.5-143—{Bedrock V_s Log for Lexington Park, Maryland}

Figure 2.5-144—{Interpretation of Bedrock Velocity Gradient for Chester Measurement}

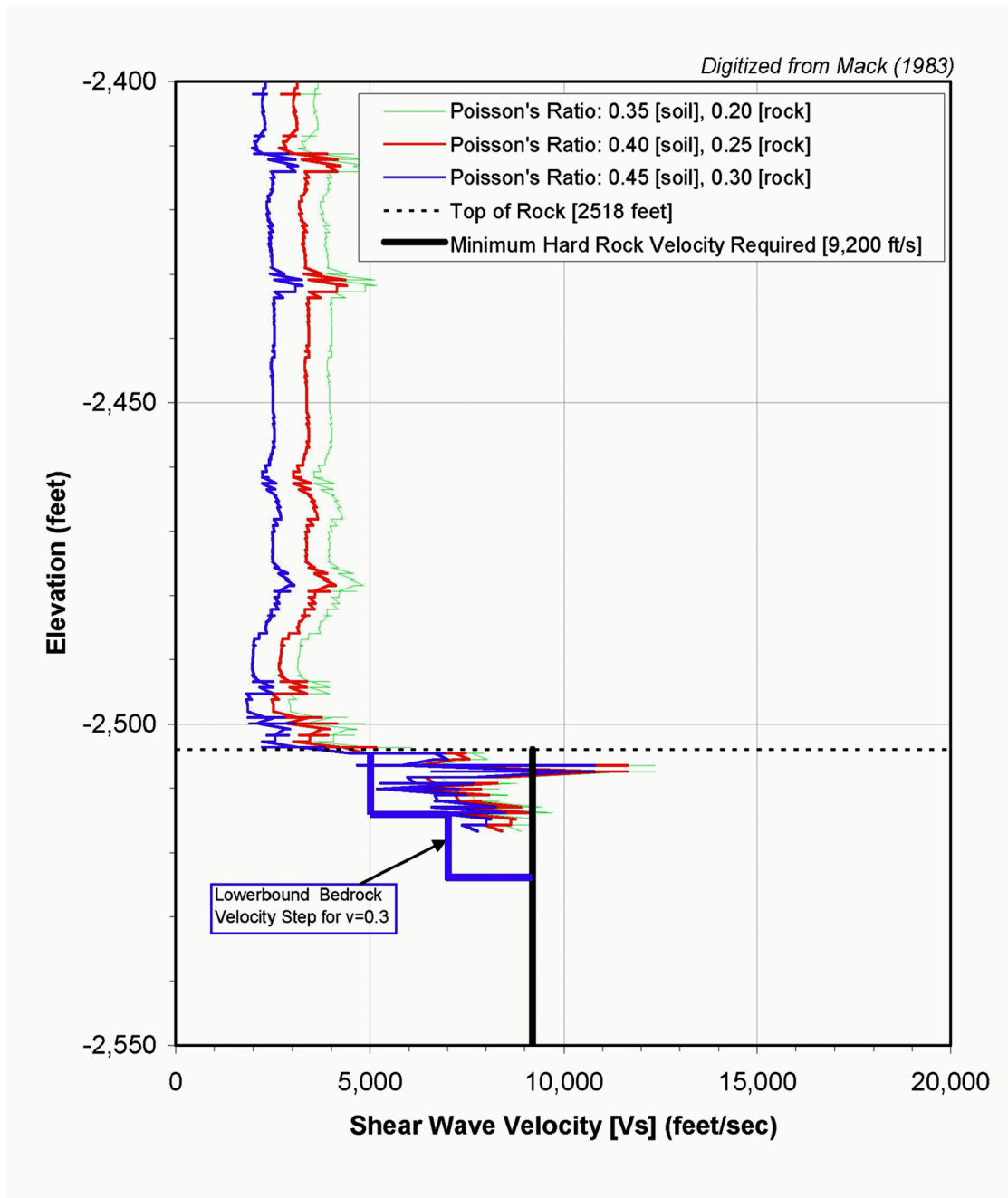


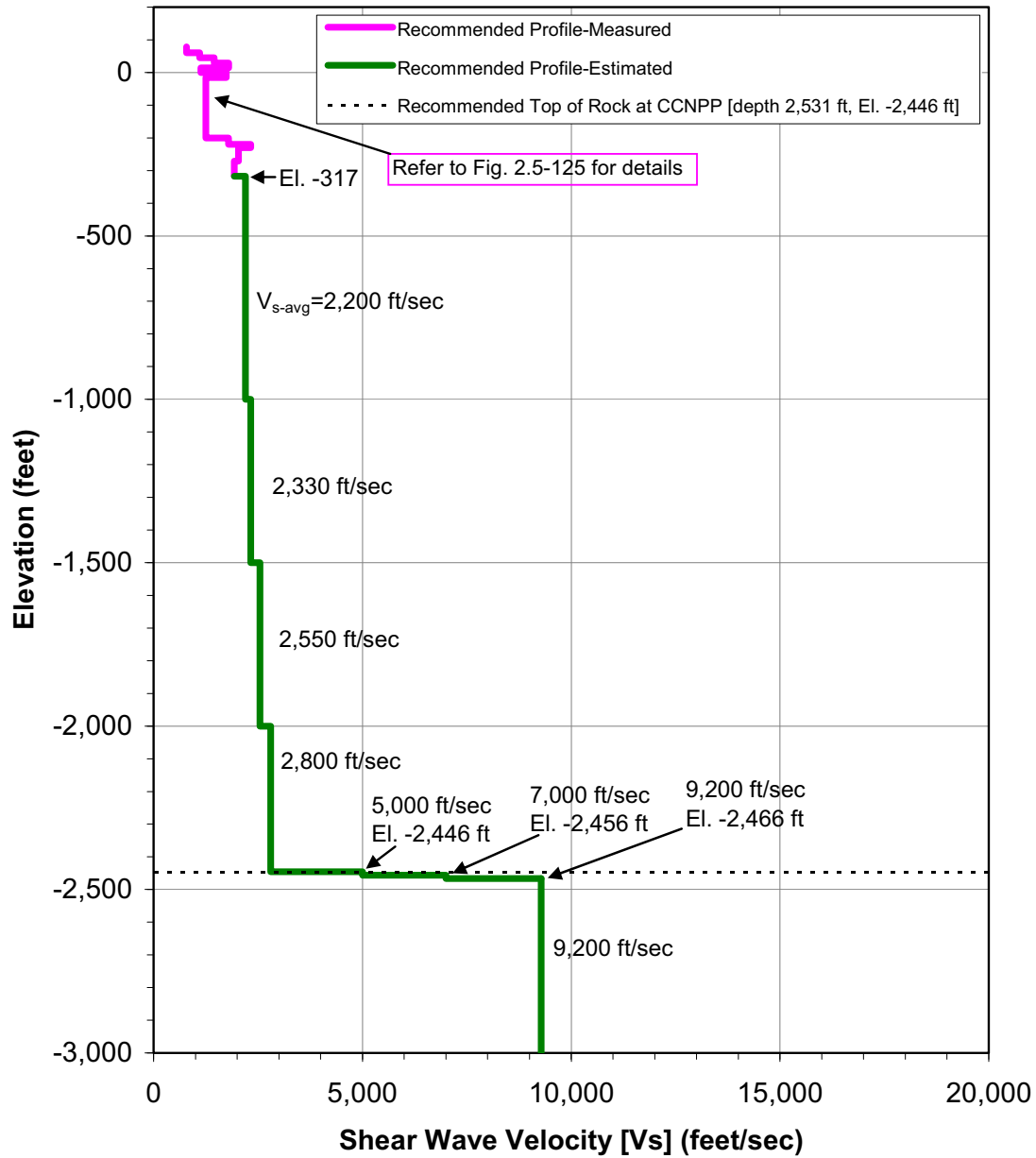
Figure 2.5-145—{Recommended Vs Profile for the CCNPP Site}

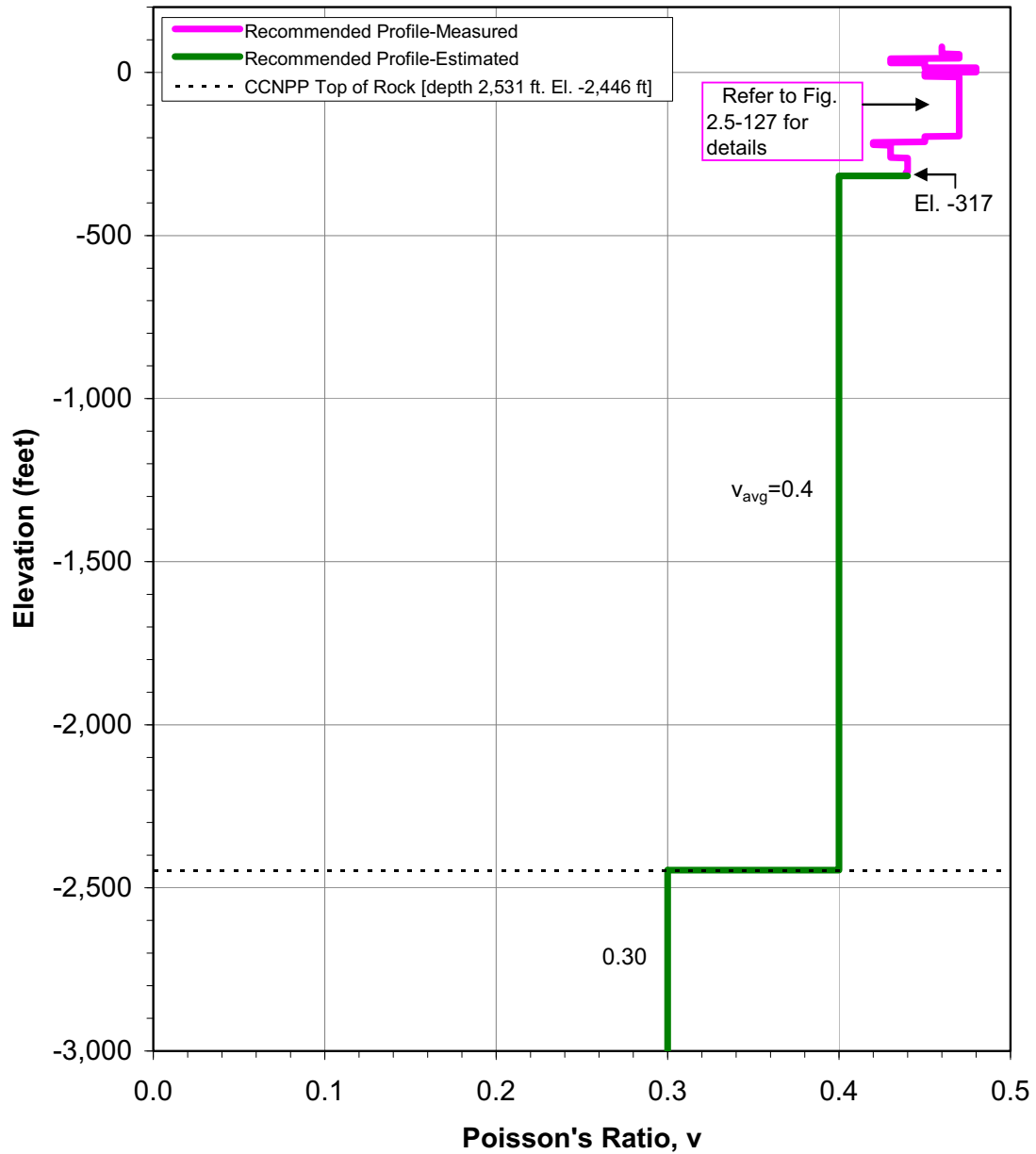
Figure 2.5-146—{Recommended Poisson's Ratio Profile for the CCNPP Site}

Figure 2.5-147—{Recommended Modulus and Damping Ratio Curves for the CCNPP Site}

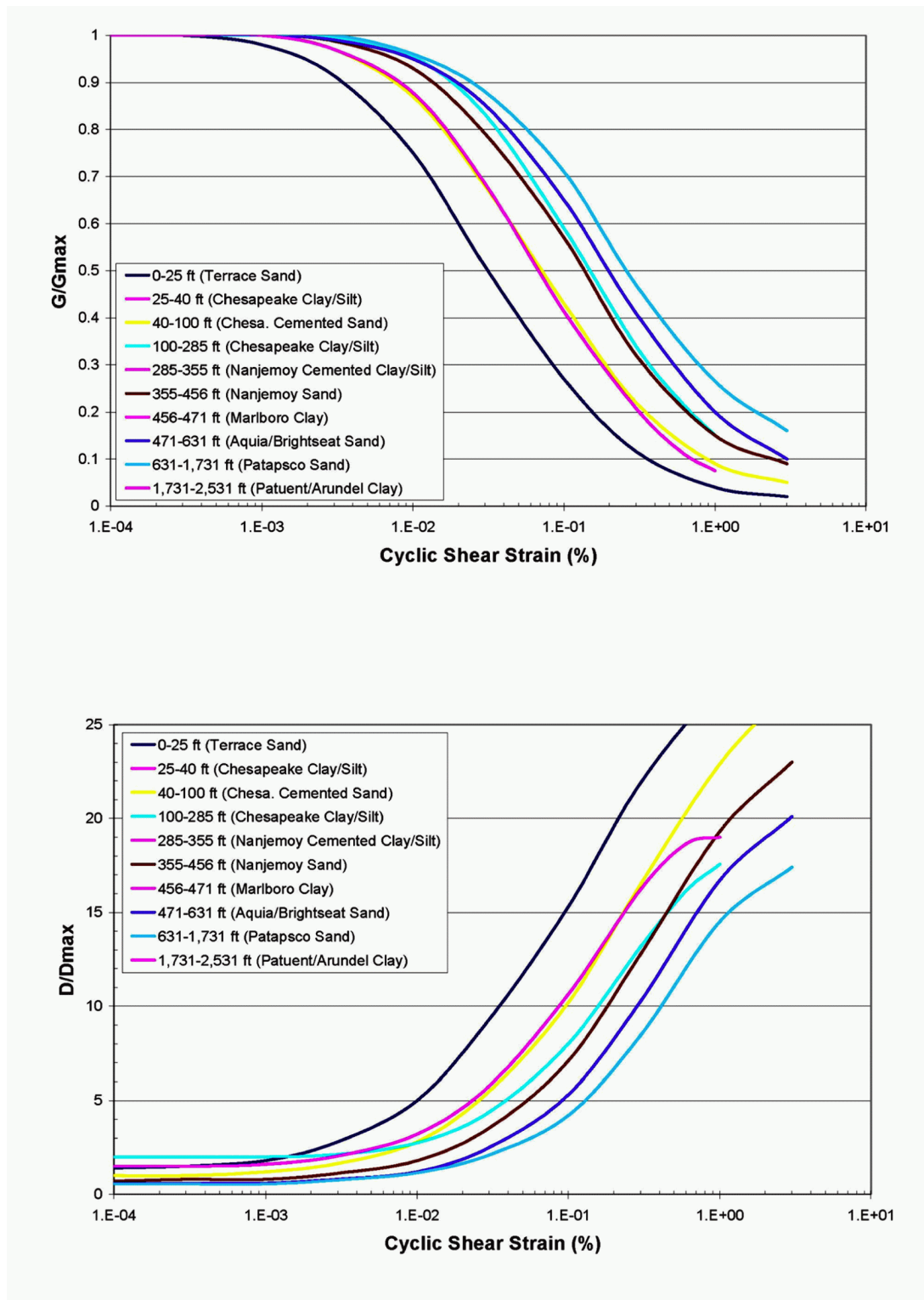


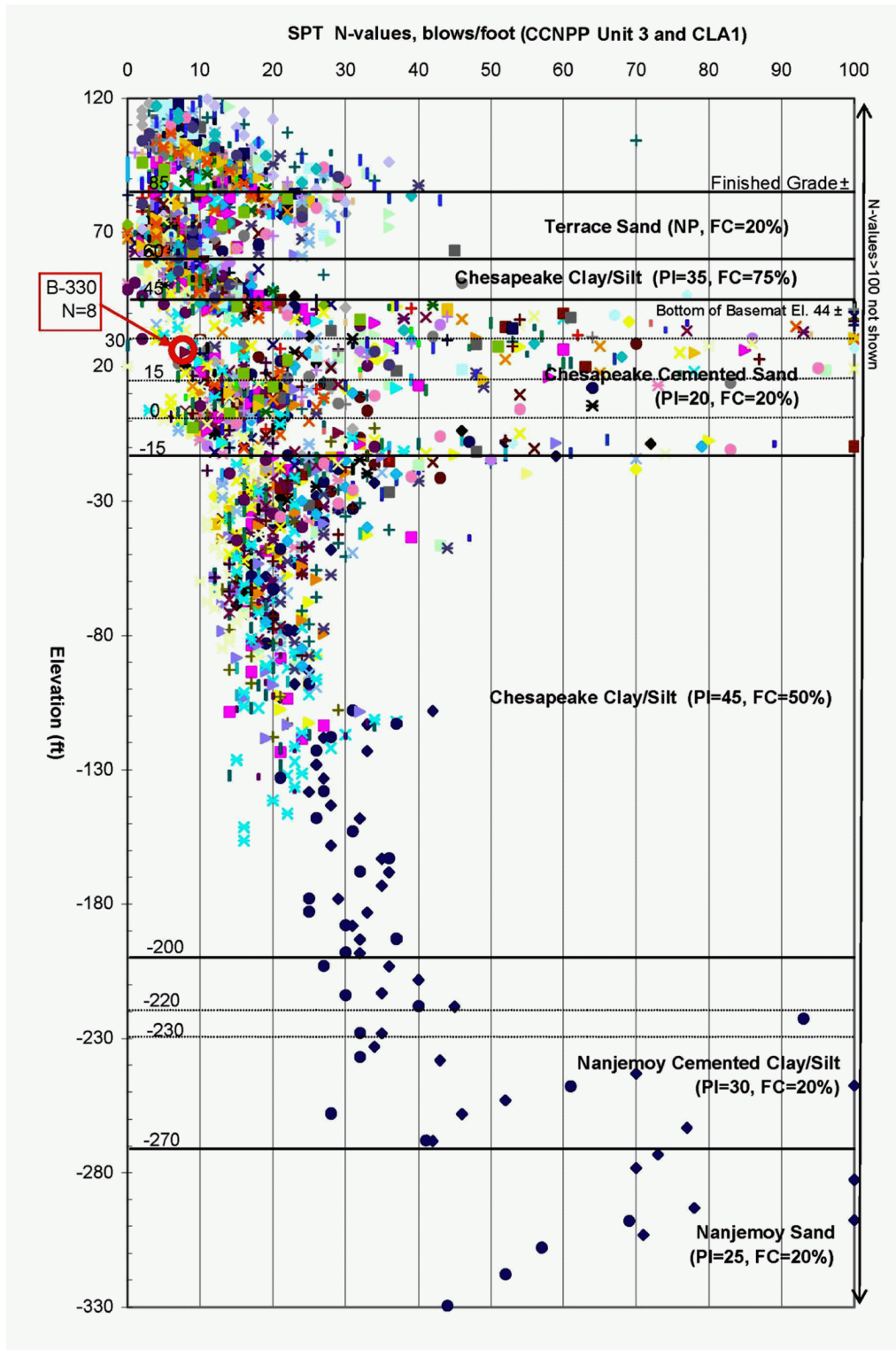
Figure 2.5-148—{Measured SPT N-Values (Uncorrected)}

Figure 2.5-149—{Calculated FOS Based on SPET/SPT N-Values}

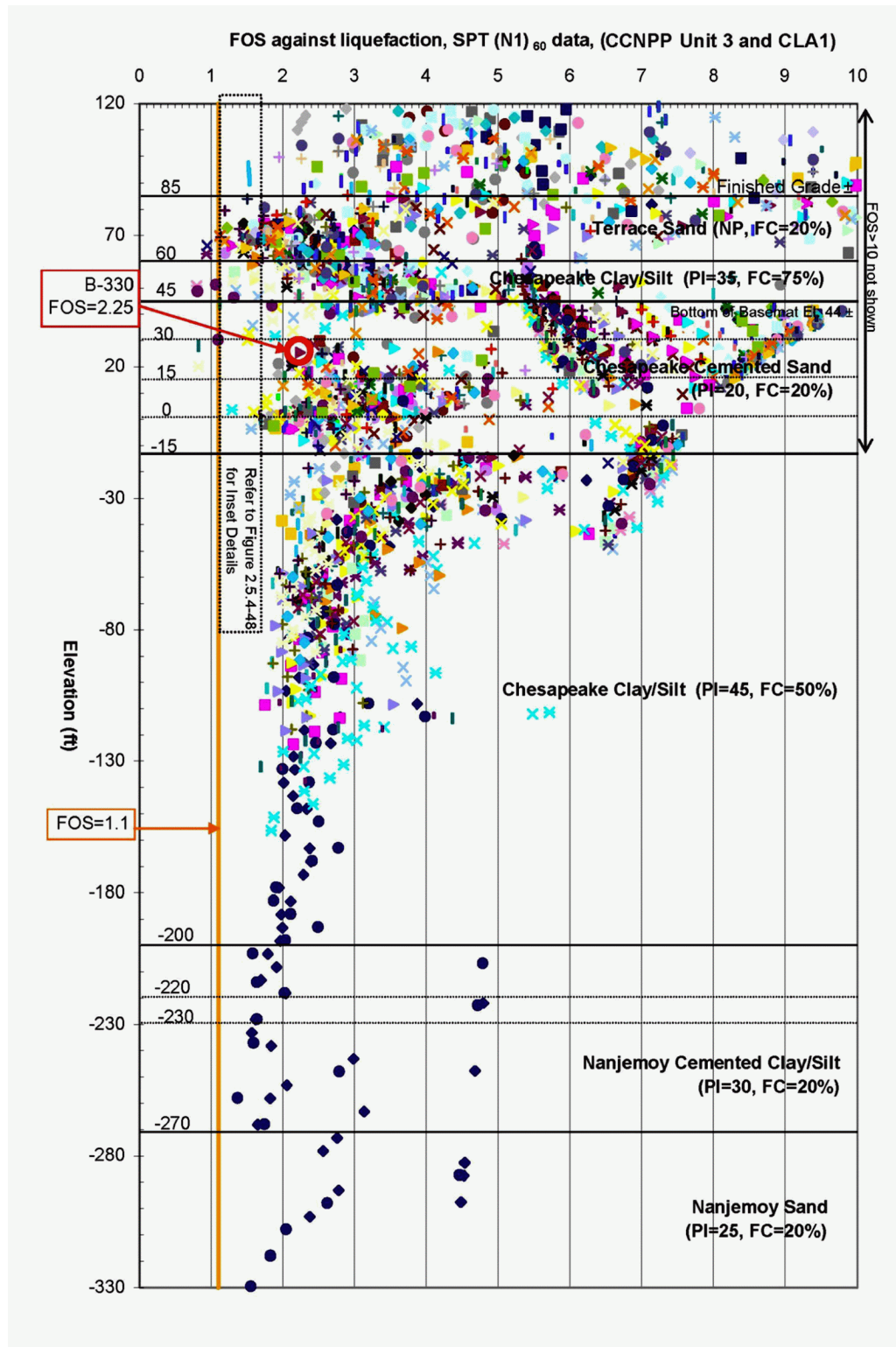


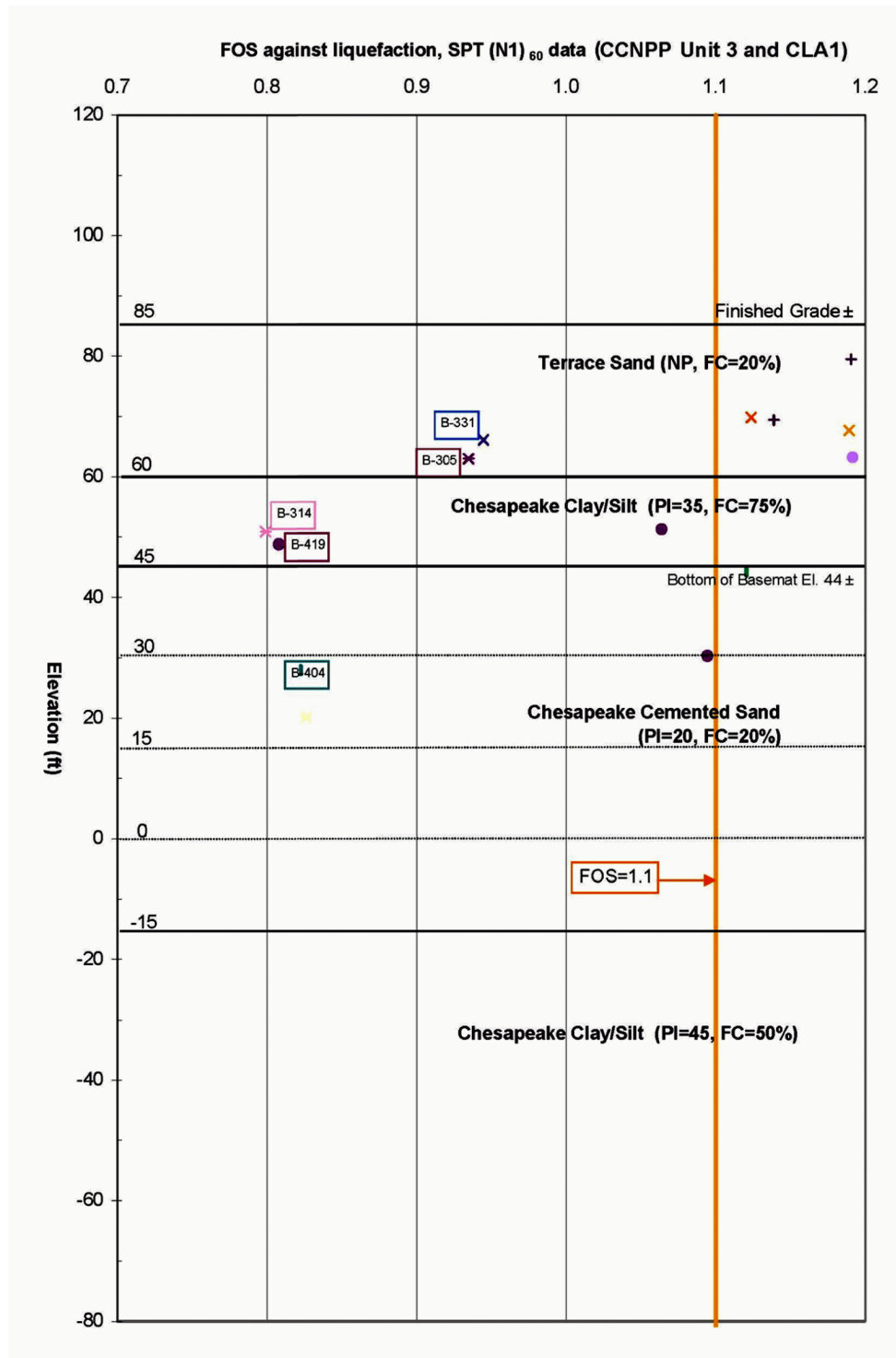
Figure 2.5-150—{Calculated FOS <1.1 Based on SPT N-Values}

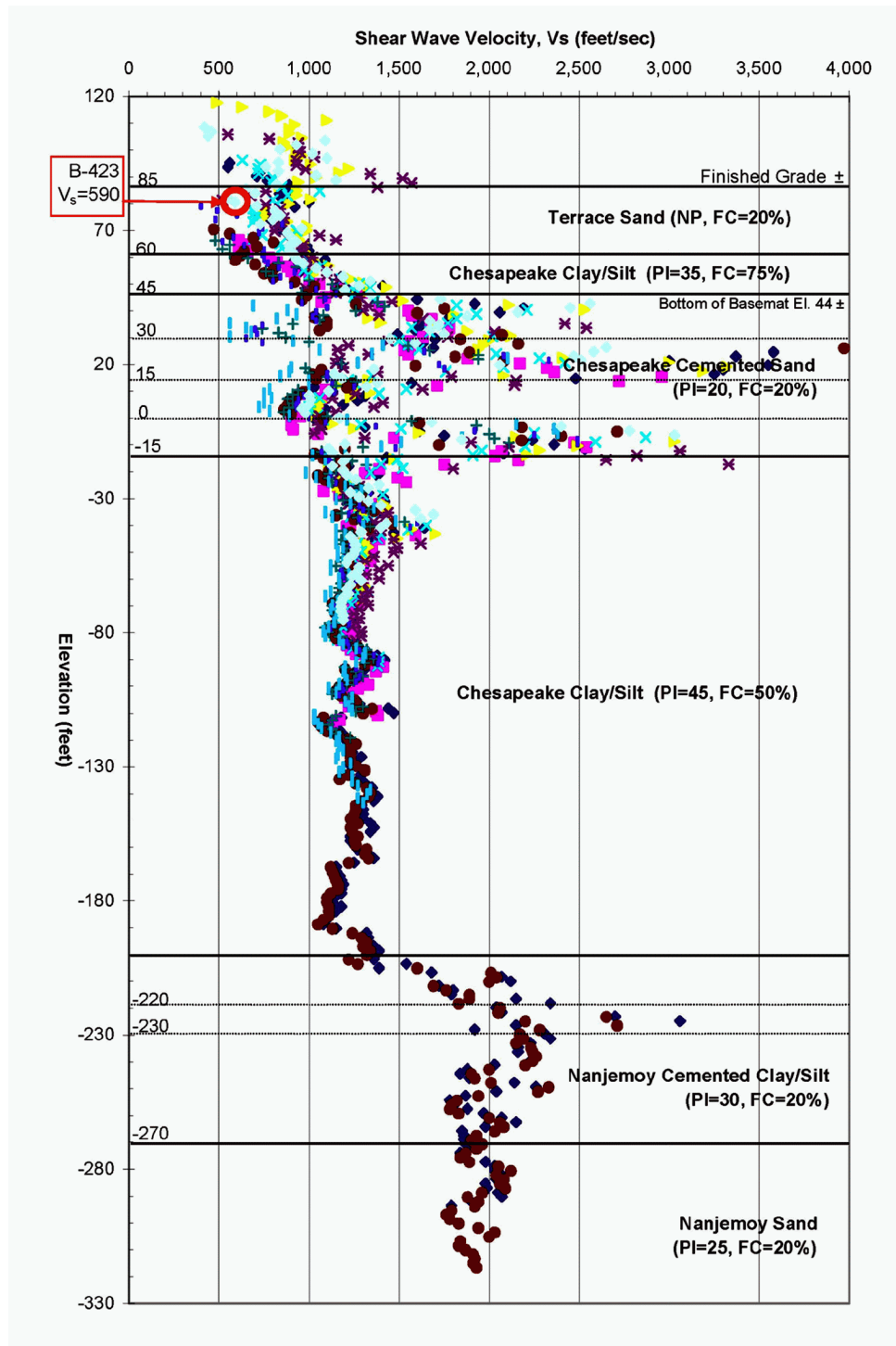
Figure 2.5-151—{Measured Suspension P-S Velocity Logging V_s Data (Uncorrected)}

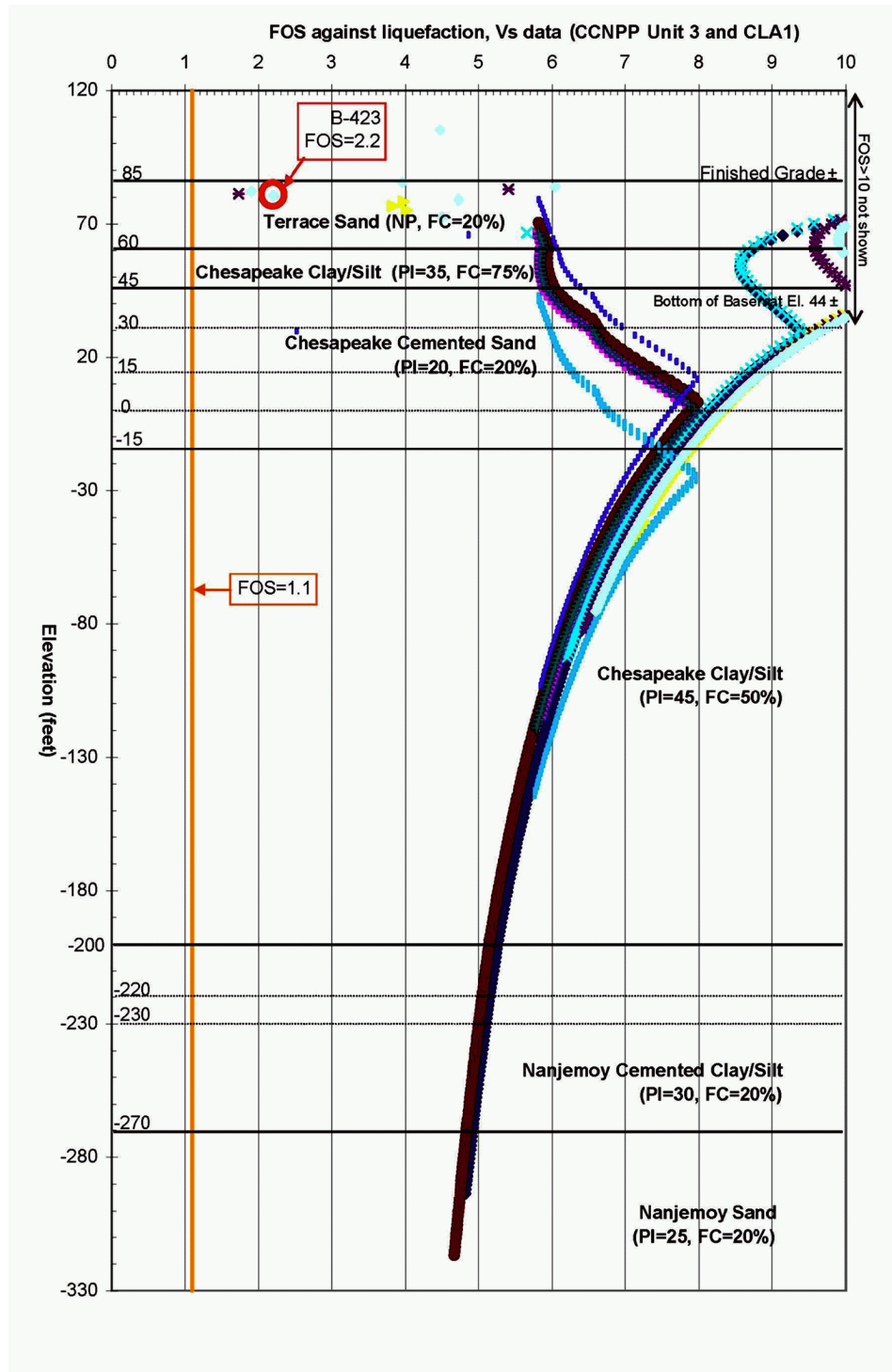
Figure 2.5-152—{Calculated FOS Based on P-S Logging V_s Data}

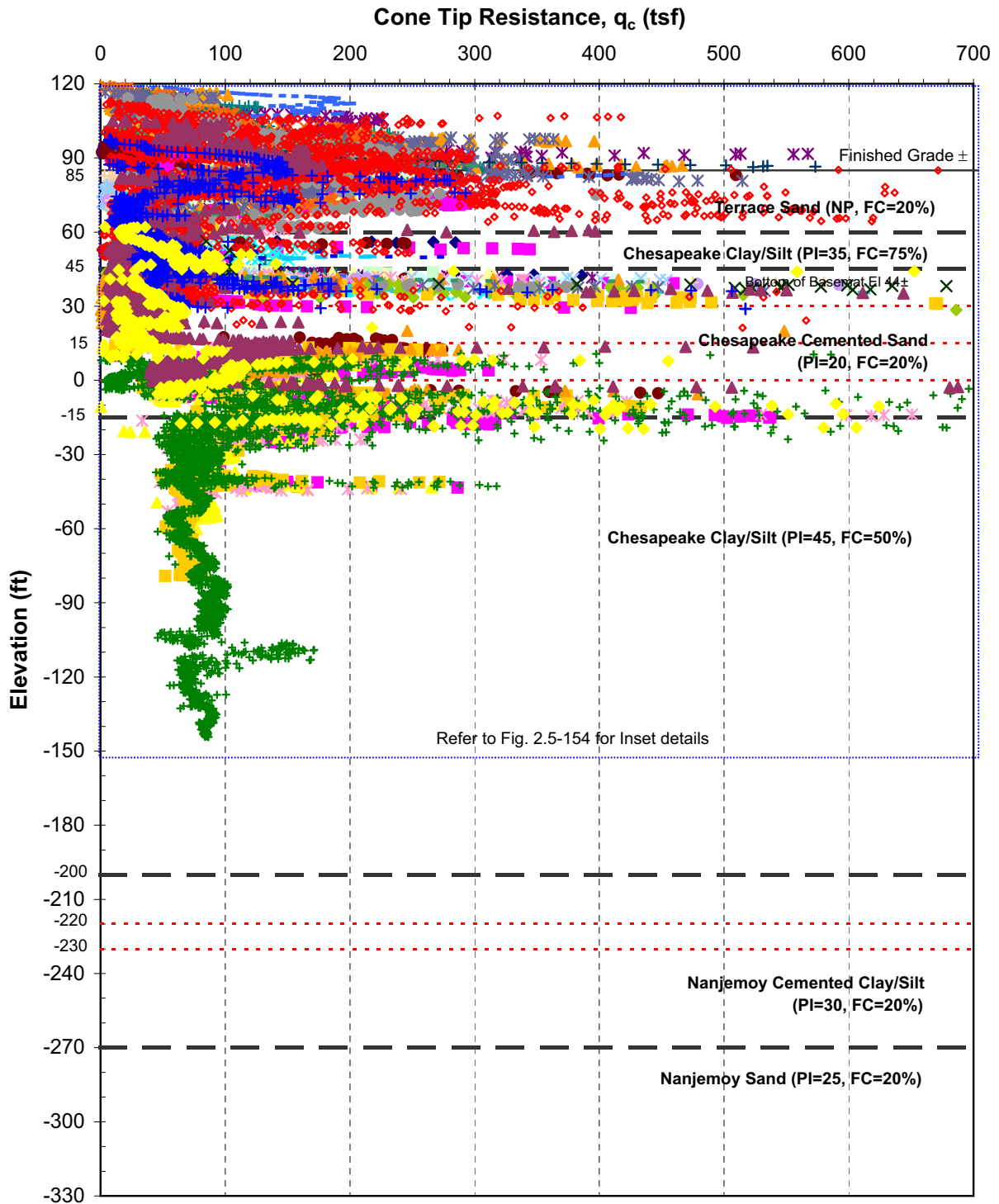
Figure 2.5-153—{Measured CPT Tip Resistance Values}

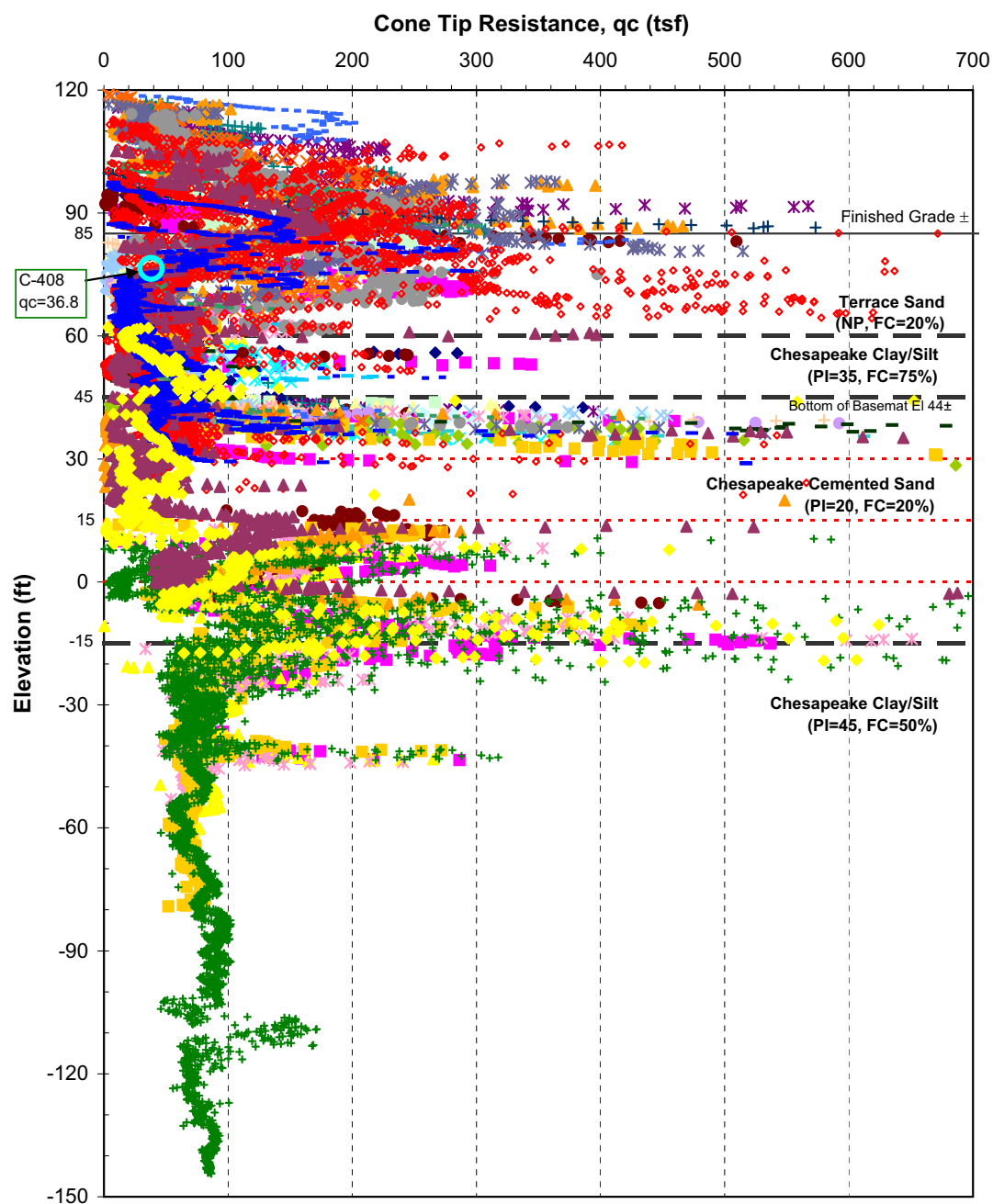
Figure 2.5-154—{Measured CPT Tip Resistance Values}

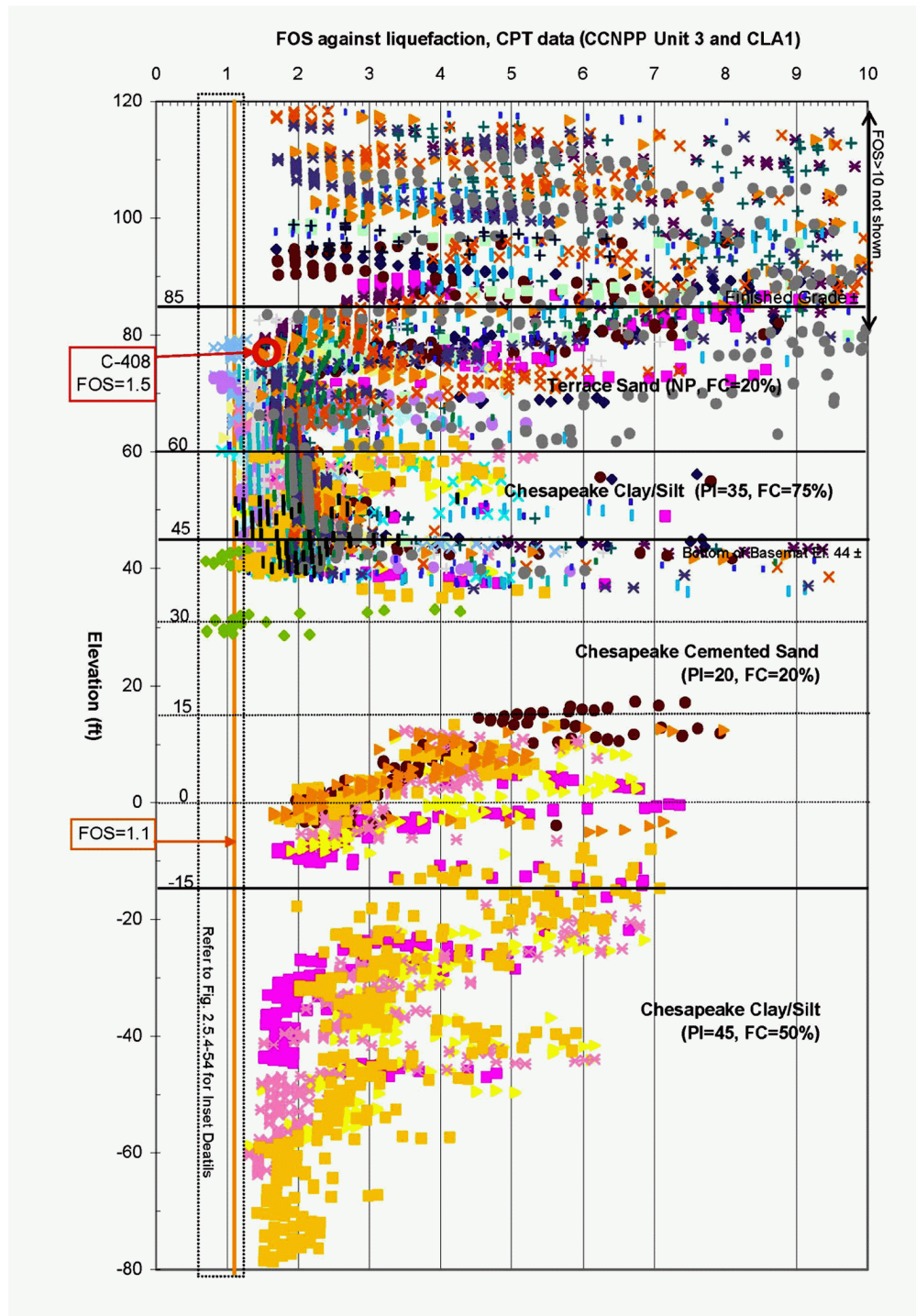
Figure 2.5-155—{Calculated FOS Based on CPT Tip Resistance Data}

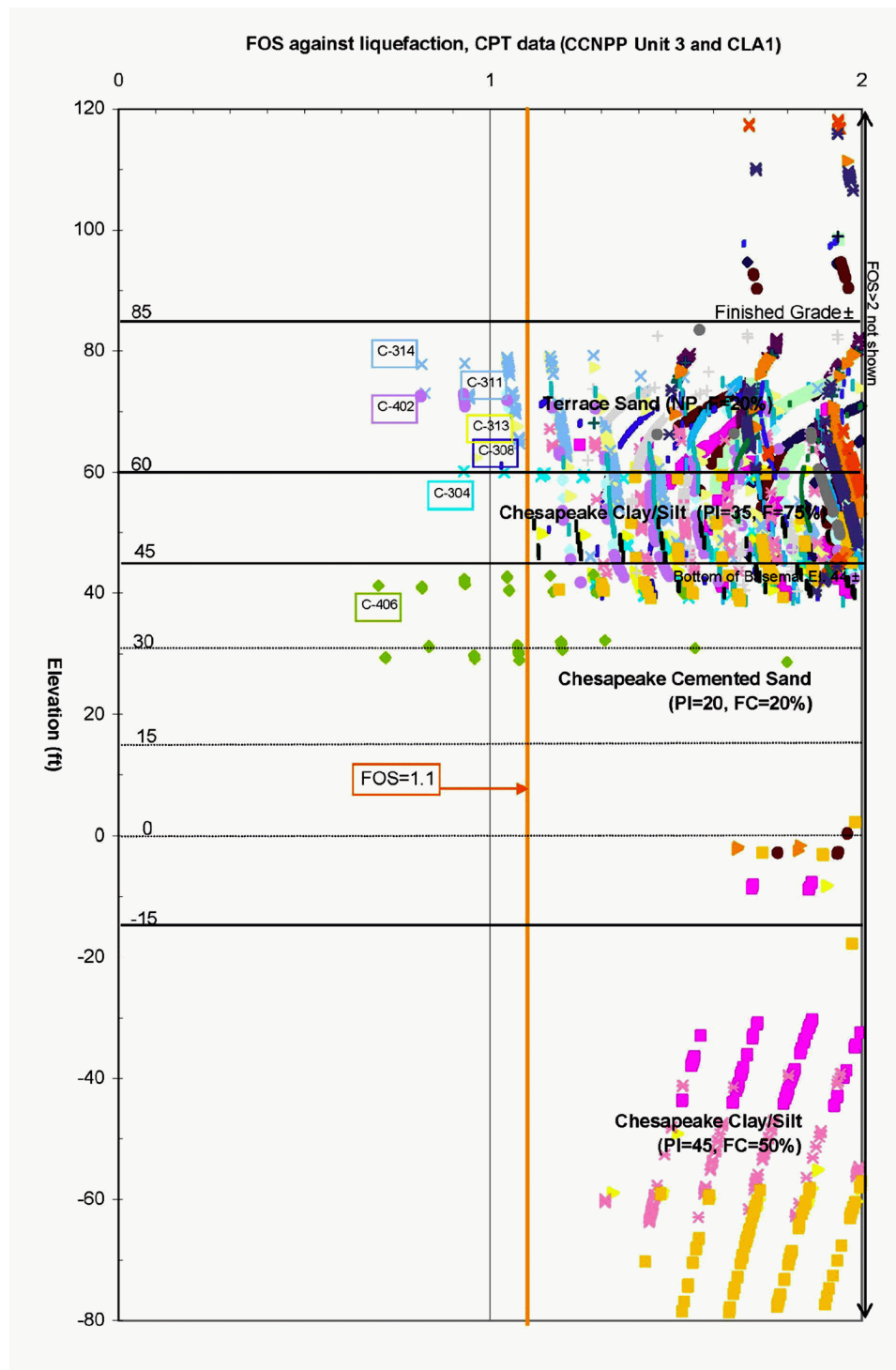
Figure 2.5-156—{Calculated FOS < 1.1 Based on CPT Tip Resistance Data}

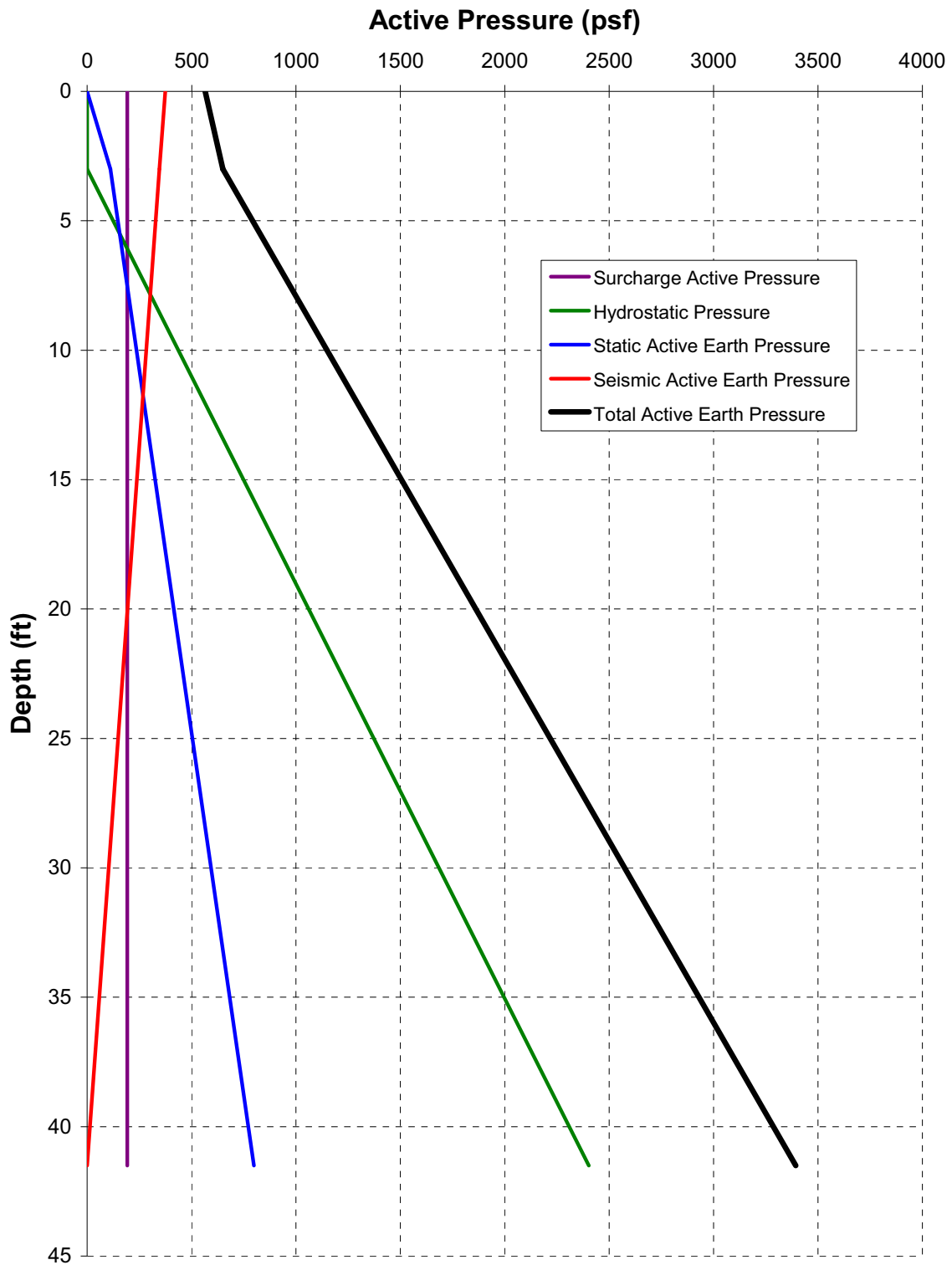
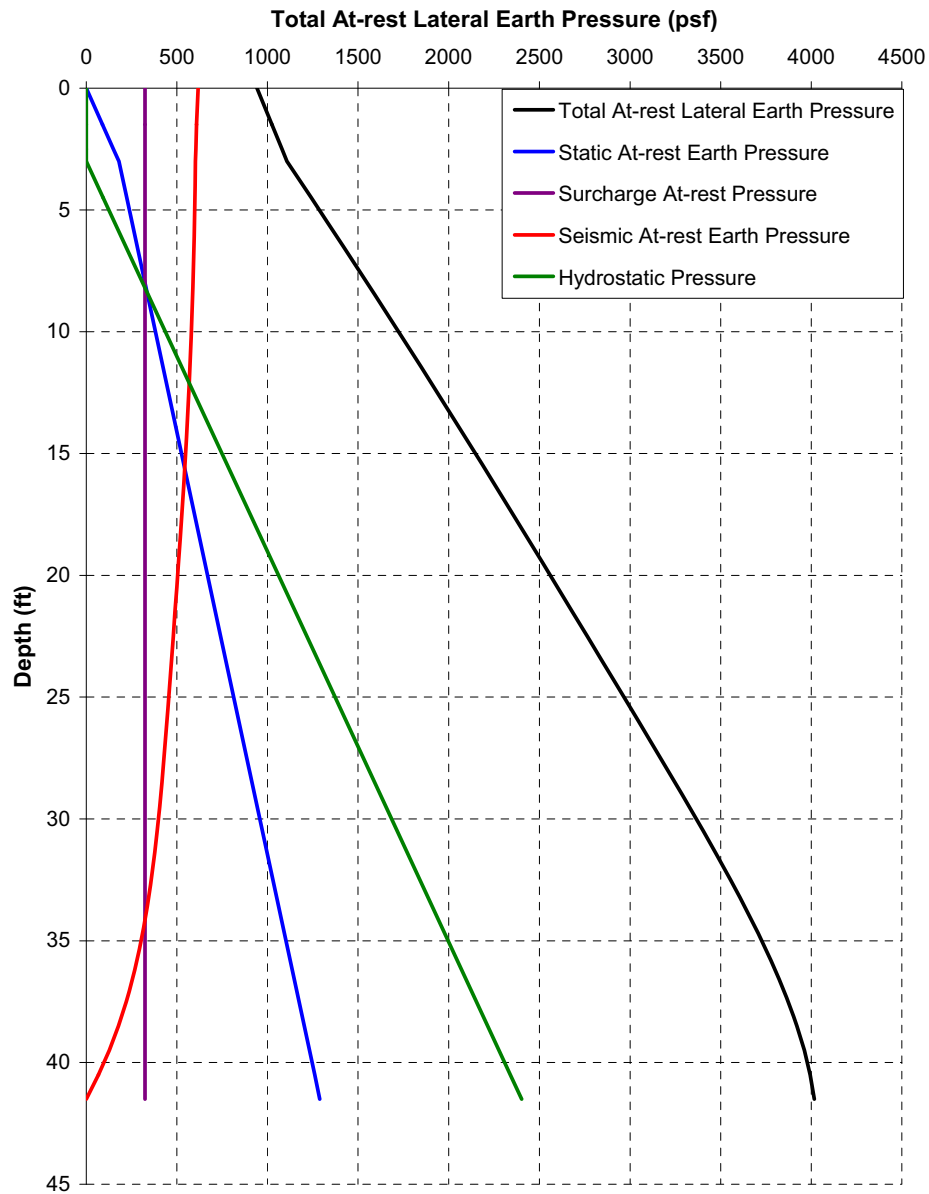
Figure 2.5-157—{Sample Active Lateral Earth Pressure Diagrams}

Figure 2.5-158—{Sample At-Rest Lateral Earth Pressure Diagrams}

Site plan of Unit 3 at the CNPP3 plant, showing the power block, switchyard, cooling tower, and various intake structures. The plan includes topographic contours, a north arrow, and a scale bar. An inset shows an enlarged detail of the calvert cliffs.

Key features and labels include:

- Unit 3** (central power block)
- Switchyard** (adjacent to Unit 3)
- Unit 3 Cooling Tower** (circular structure to the right)
- Existing Plant Units 1 and 2** (top left)
- Existing Intake** (top left)
- Existing Building** (top left)
- Existing Switchyard** (top left)
- Existing Facility** (bottom left)
- UHS Makeup Water Intake Structure** (top center)
- UHS Electrical Building** (top center)
- Existing Barge Unloading** (top center)
- Chesapeake Bay** (top right)
- CNPP3 Plant North** (top right)
- True North** (top right)
- Enlarged Calvert Cliffs Detail 2X** (top right inset)
- Existing Barge Unloading** (top right inset)
- Calvert Cliffs** (top right inset)
- Basin EL. 49'** (top right)
- Basin EL. 48'** (top right)
- Basin EL. 50'** (top right)
- Basin EL. 47'** (top right)
- Basin EL. 46'** (top right)
- Basin EL. 45'** (top right)
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- Basin EL. -95'** (top right)
- Basin EL. -96'** (top right)
- Basin EL. -97'** (top right)
- Basin EL. -98'** (top right)
- Basin EL. -99'** (top right)
- Basin EL. -100'** (top right)

Figure 2.5-160—{Cross-Sections in Powerblock Area}

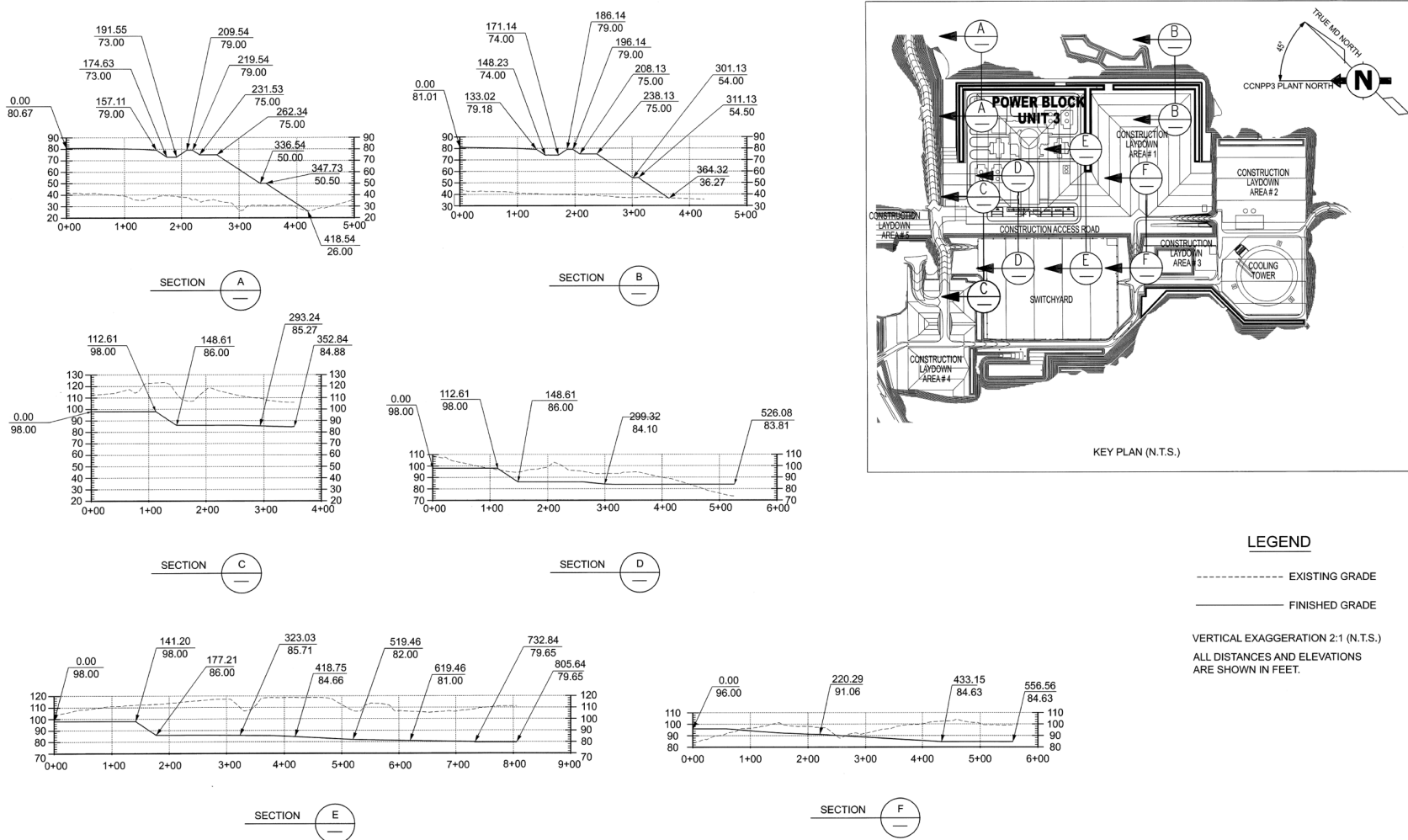
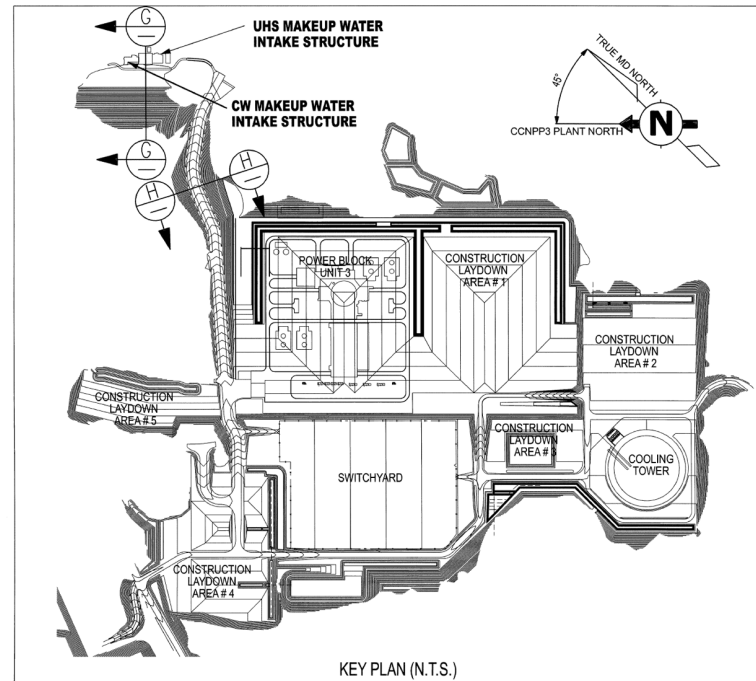
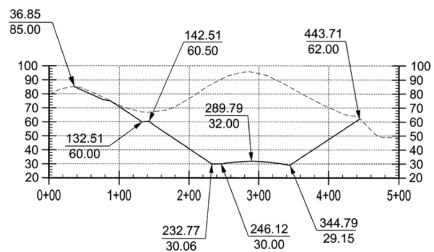
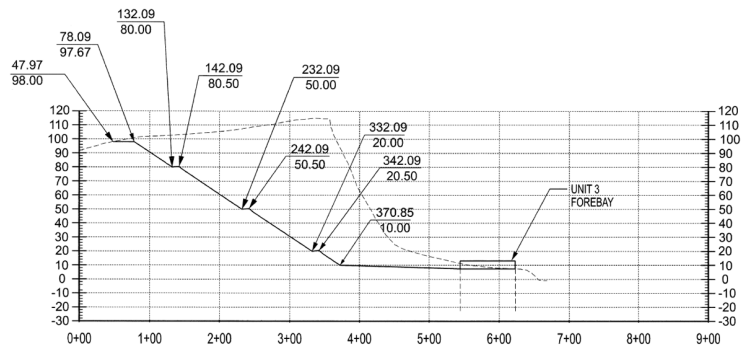


Figure 2.5-161—{Cross-Sections in Intake Structures Area Slope and Utility Corridor}



LEGEND

----- EXISTING GRADE

———— FINISHED GRADE

VERTICAL EXAGGERATION 2:1 (N.T.S.)

ALL DISTANCES AND ELEVATIONS
ARE SHOWN IN FEET.

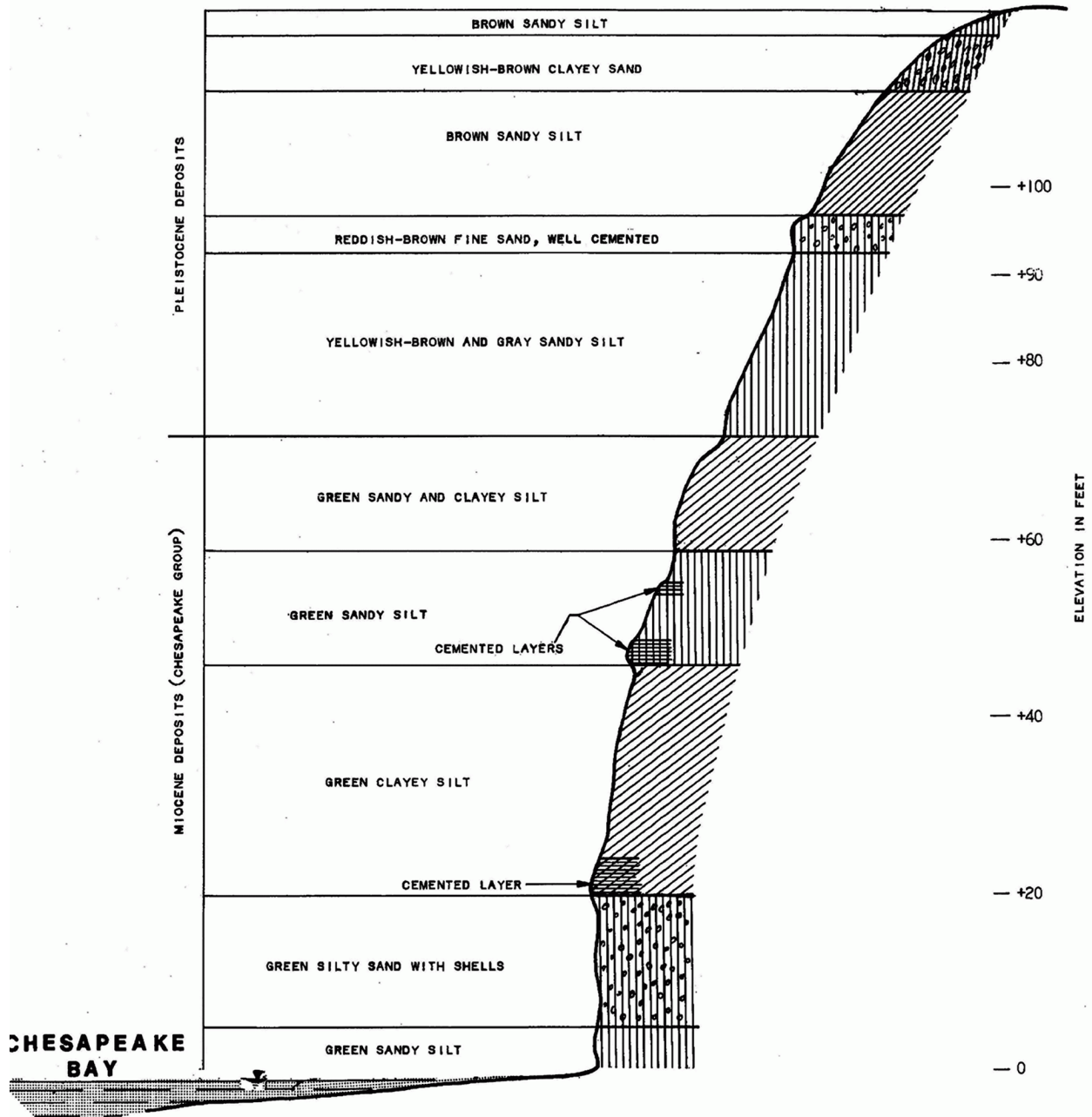
Figure 2.5-162—{Schematic Section of Calvert Cliffs}

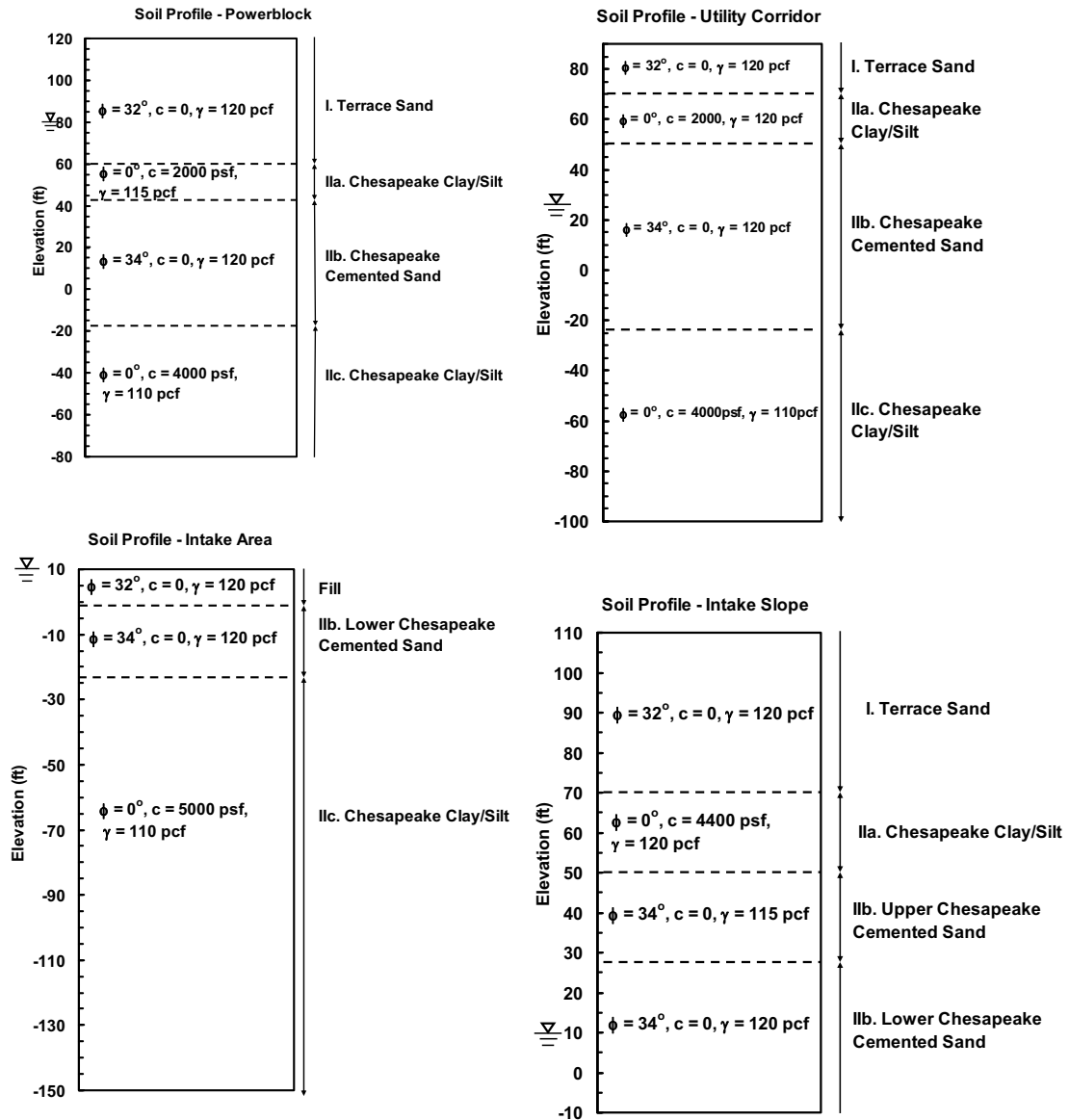
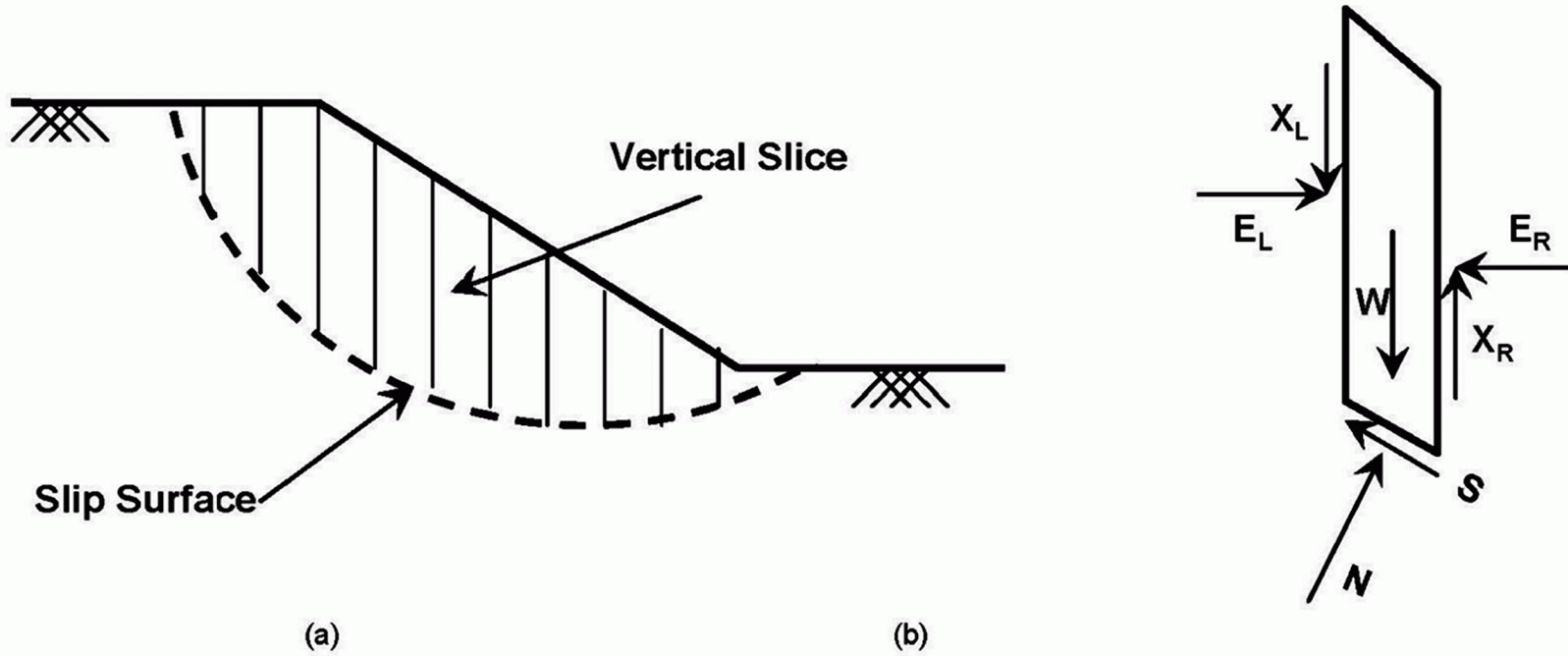
Figure 2.5-163—{Soil Stratigraphy and Properties for Slope Stability Analysis}

Figure 2.5-164—{Limit Equilibrium Slope Stability Analysis}



(a) Sliding Mass Discretized into Vertical Slices
 (b) Forces on a Single Vertical Slice

Figure 2.5-165—{Static and Pseudo-Static Stability Analyses of Slope Section A}

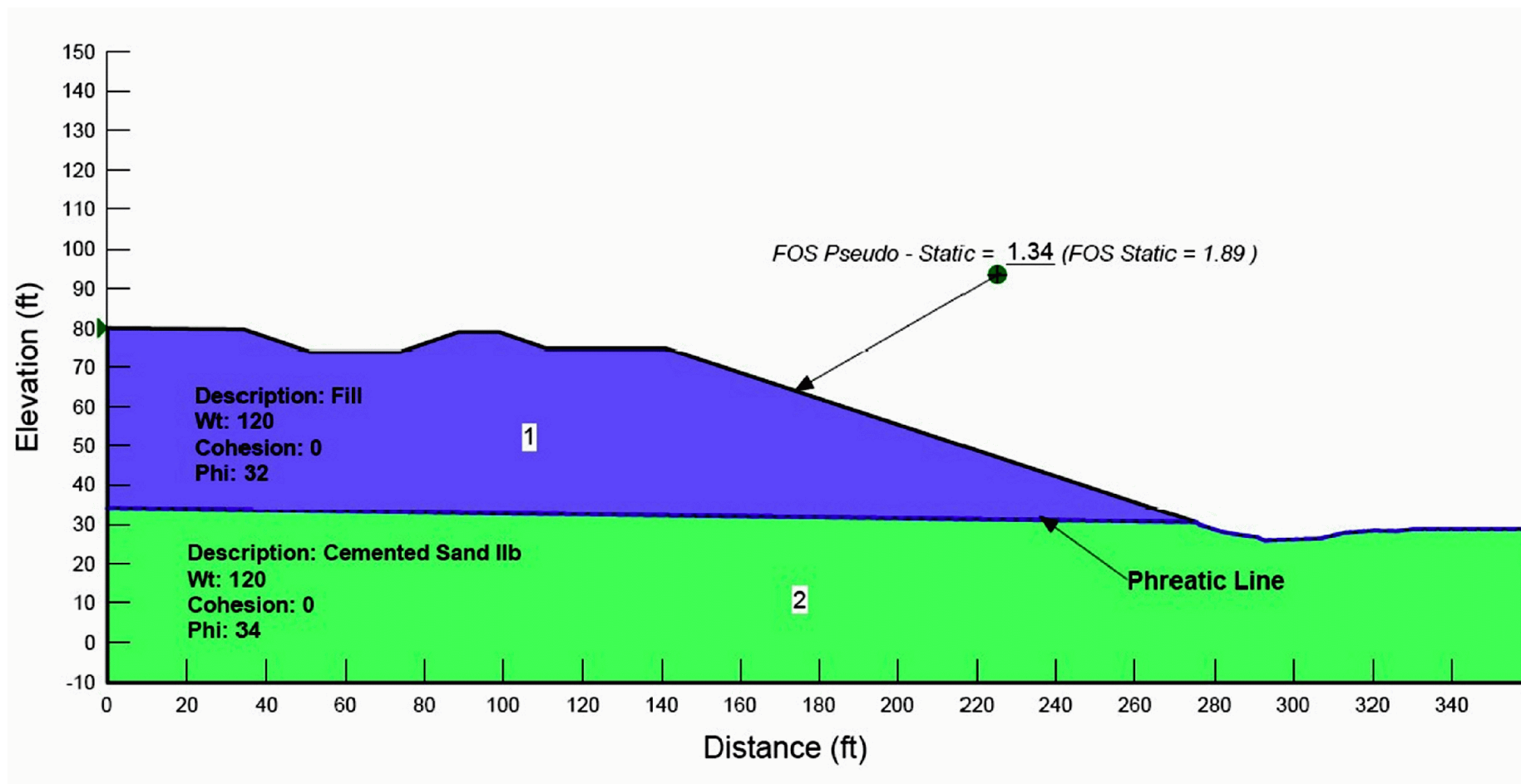


Figure 2.5-166—{Static and Pseudo-Static Stability Analyses of Slope Section B}

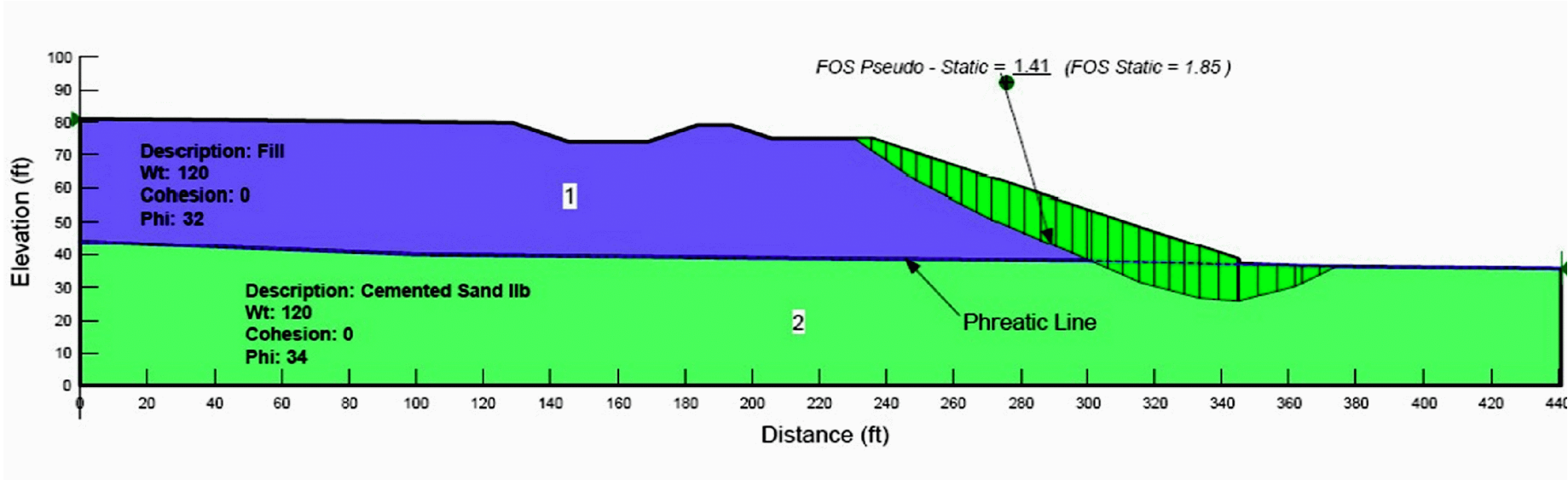


Figure 2.5-167—{Static and Pseudo-Static Stability Analyses of Slope Section C}

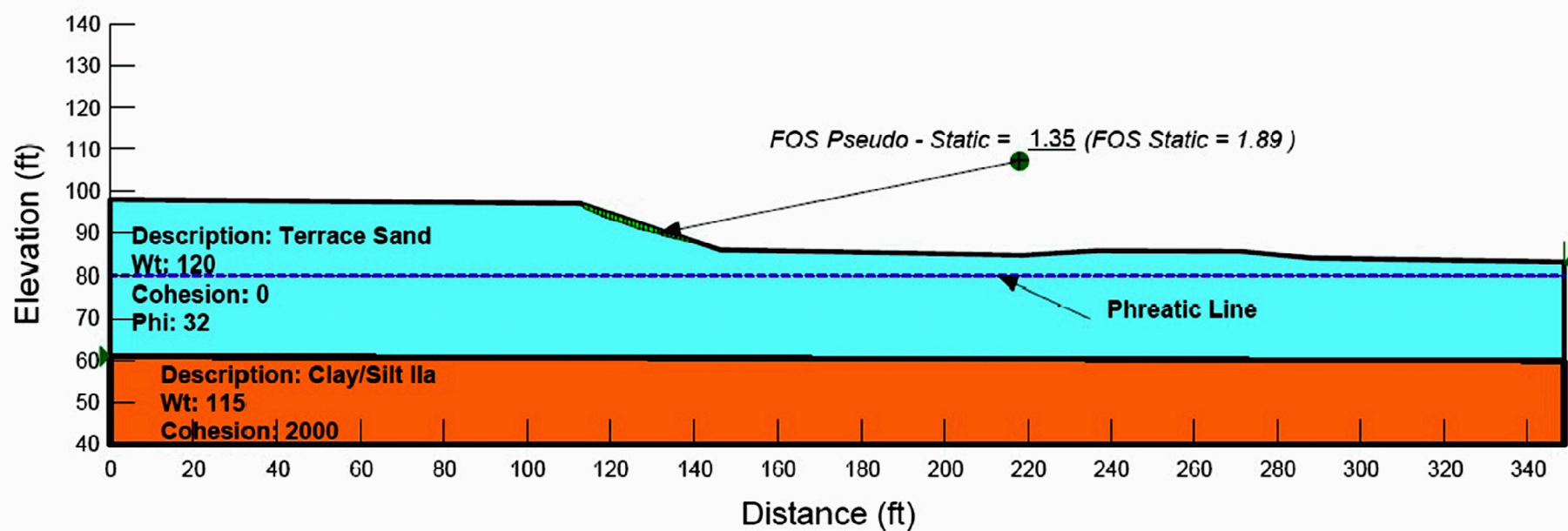


Figure 2.5-168—{Static and Pseudo-Static Stability Analyses of Slope Section D}

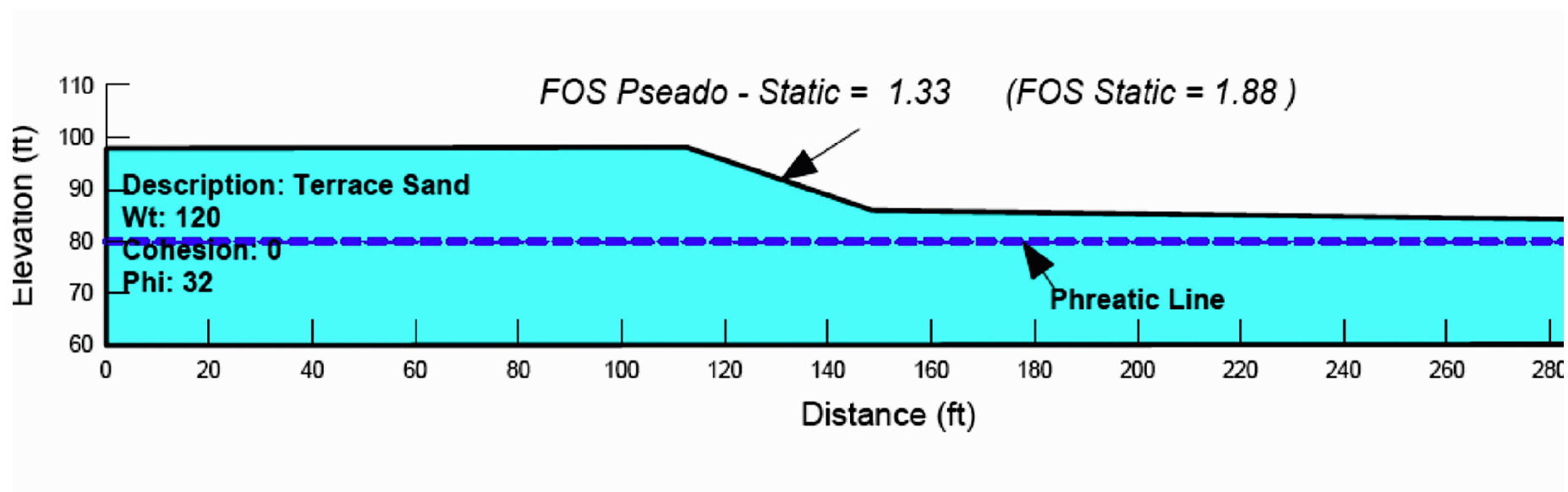


Figure 2.5-169—{Static and Pseudo-Static Stability Analyses of Slope Section E}

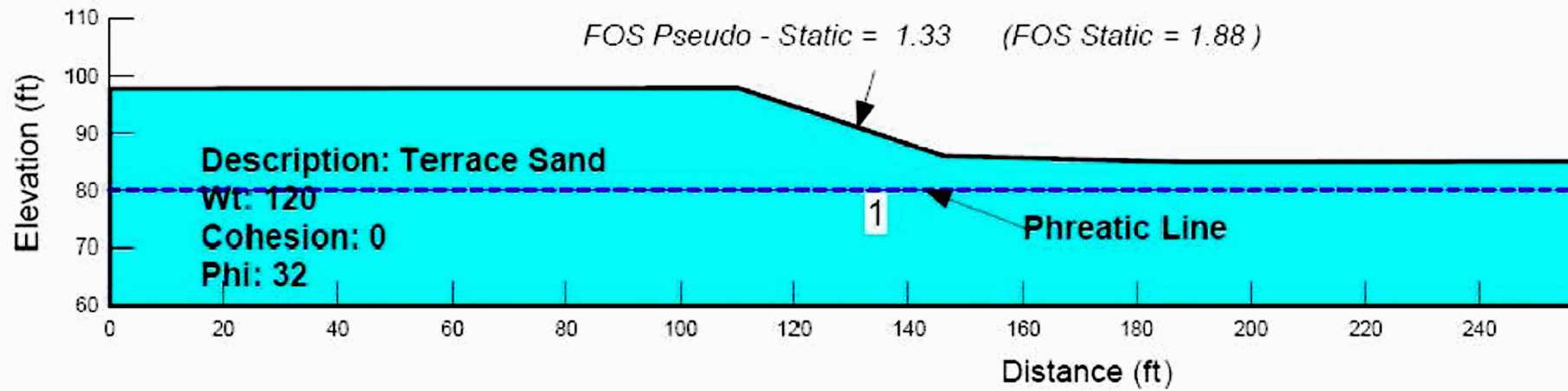


Figure 2.5-170—{Static and Pseudo-Static Stability Analyses of Slope Section F}

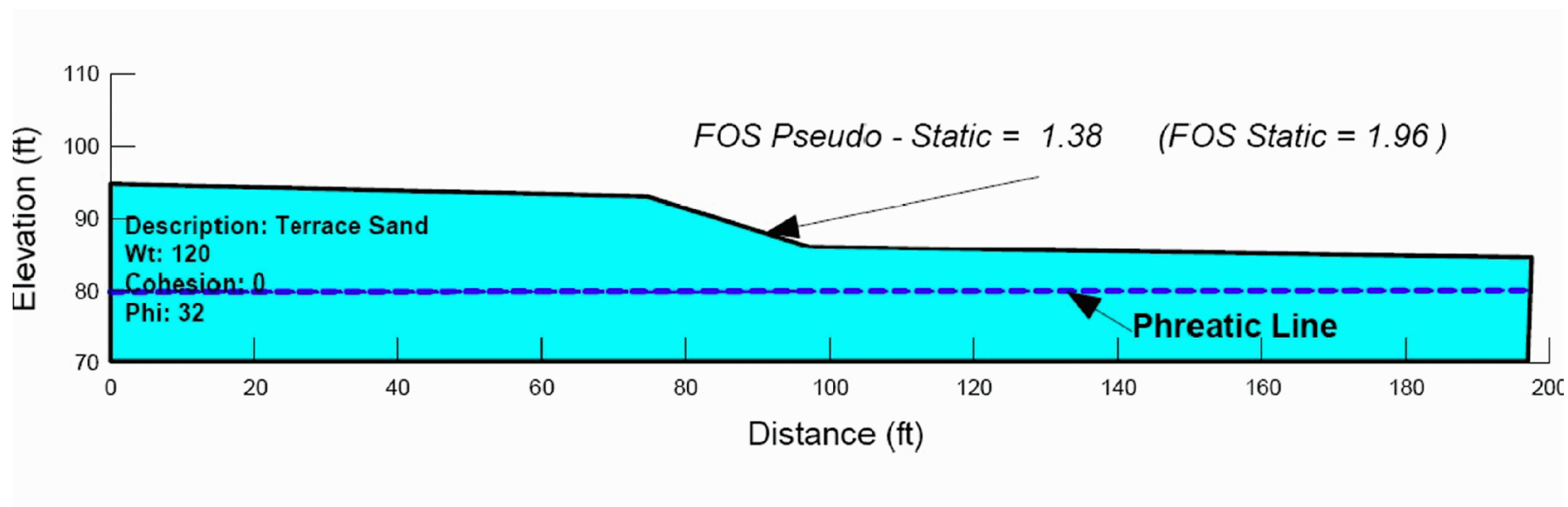


Figure 2.5-171—{Static and Pseudo-Static Stability Analyses of Slope Section G}

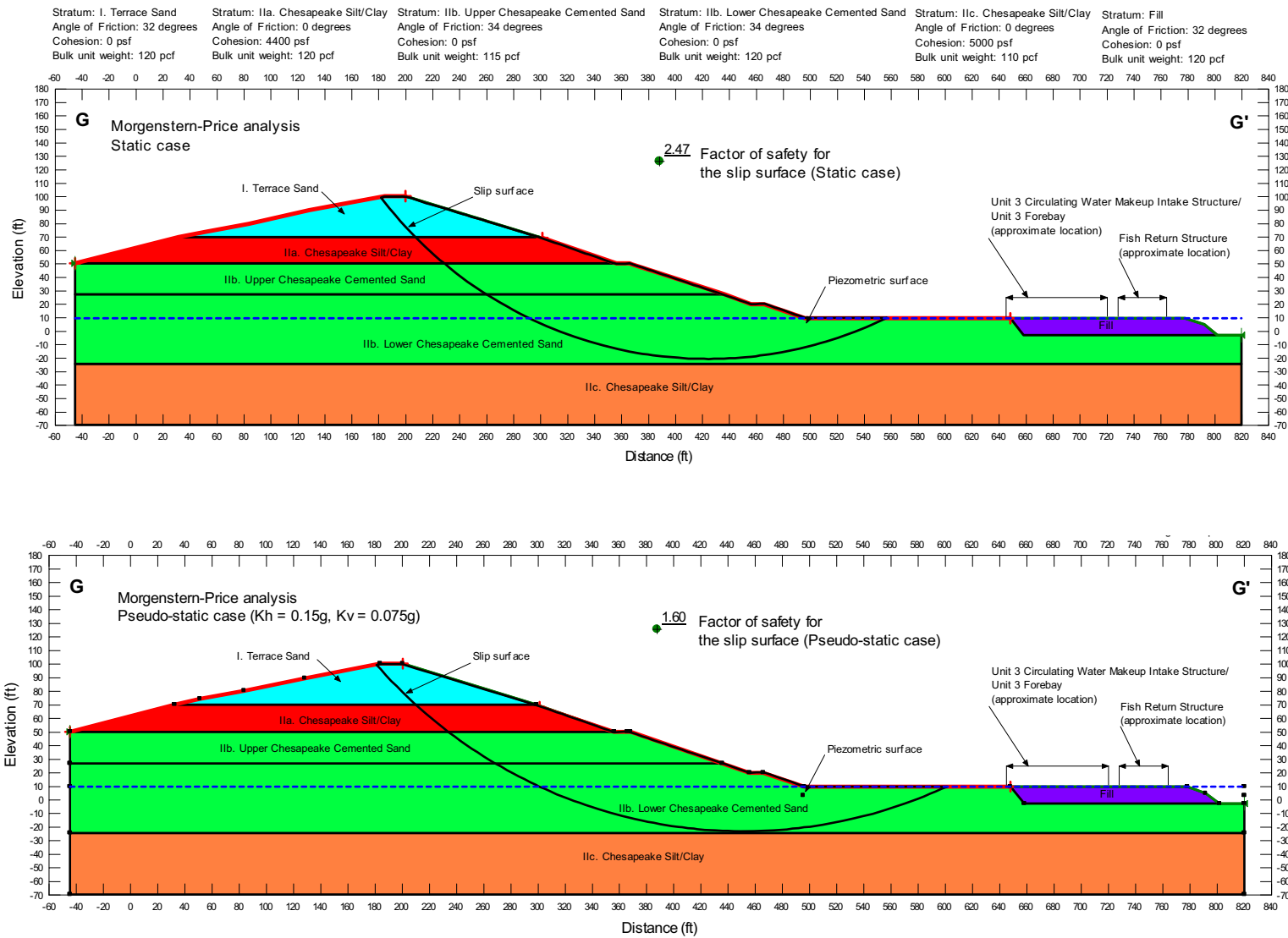


Figure 2.5-172—{Static and Pseudo-Static Stability Analyses of Slope Section A (Forced Deeper Surface)}

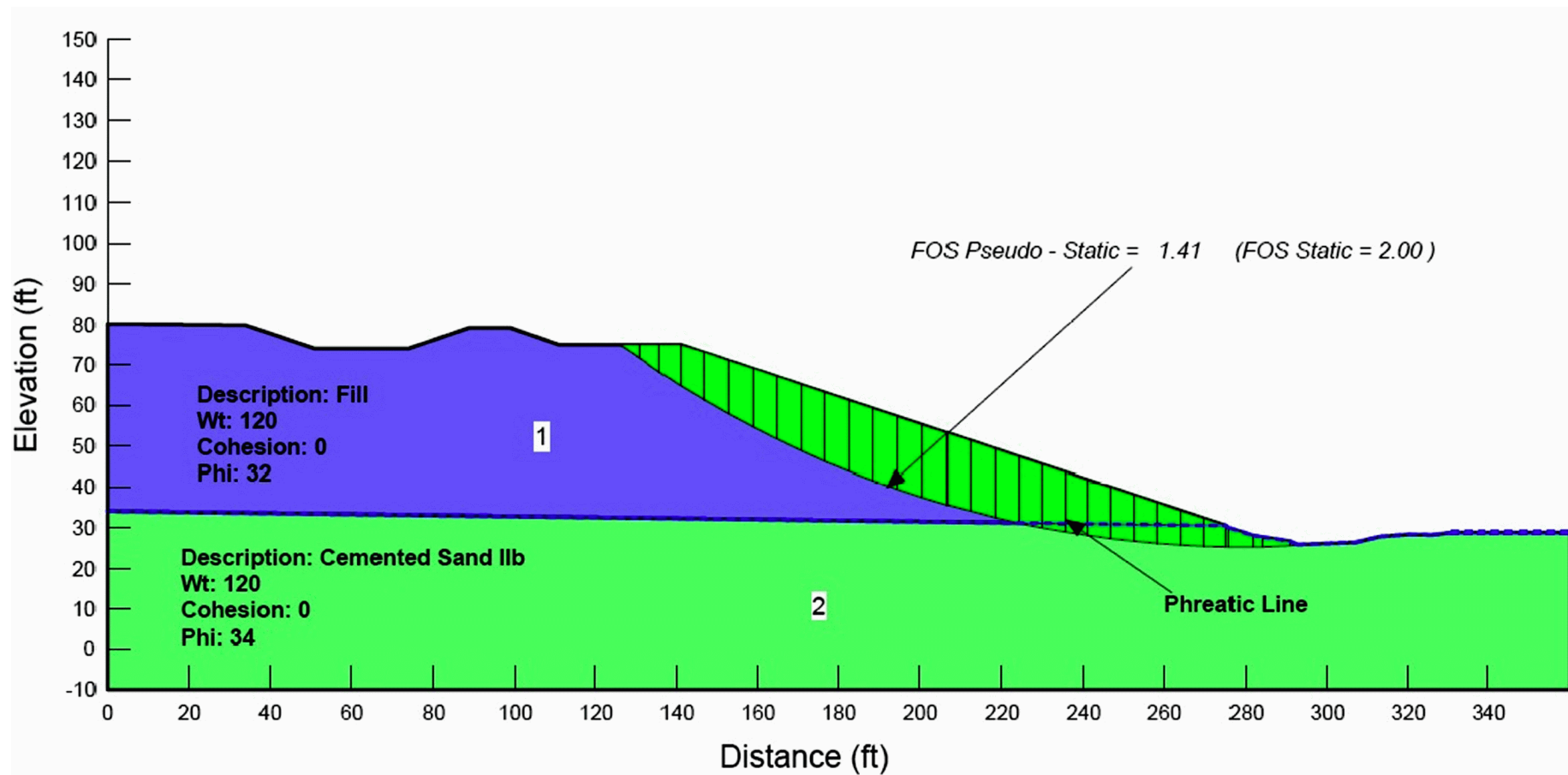


Figure 2.5-173—{Static and Pseudo-Static Stability Analyses of Slope Section C (Forced Deeper Surface)}

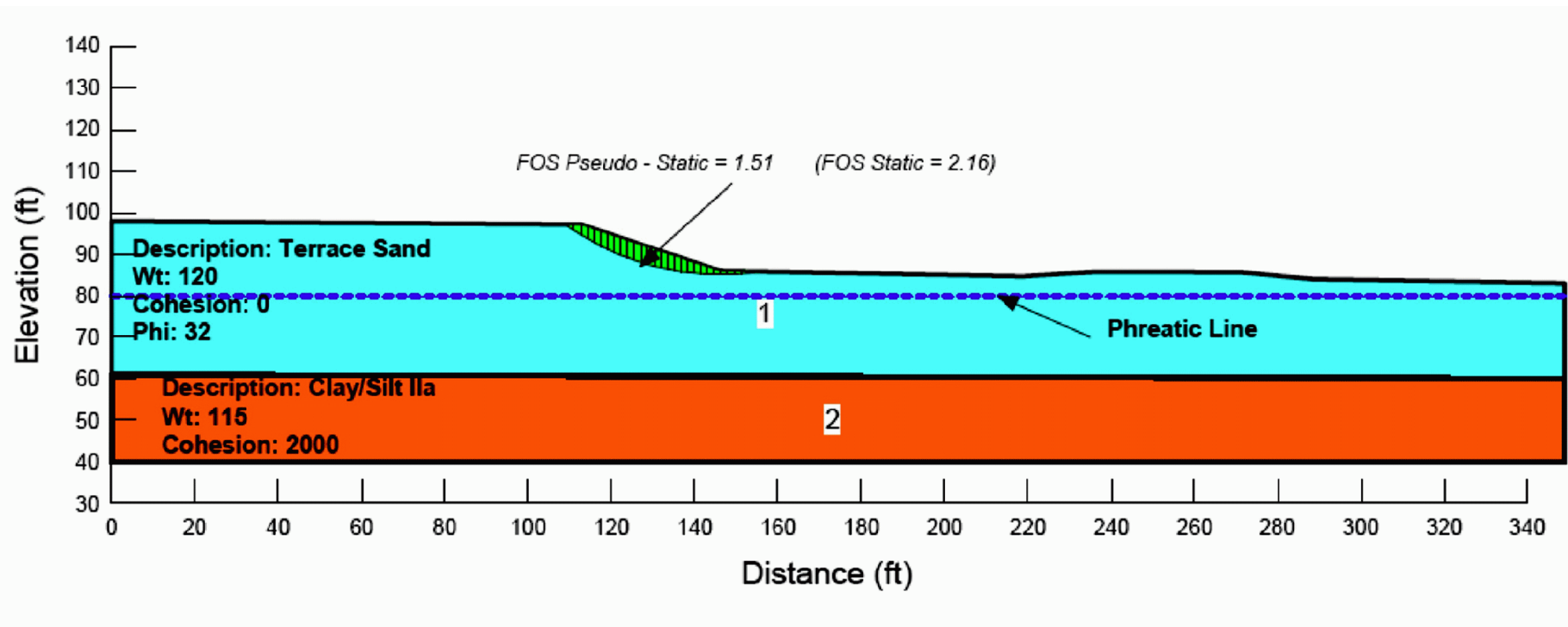


Figure 2.5-174—{Static and Pseudo-Static Stability Analyses of Slope Section D (Forced Deeper Surface)}

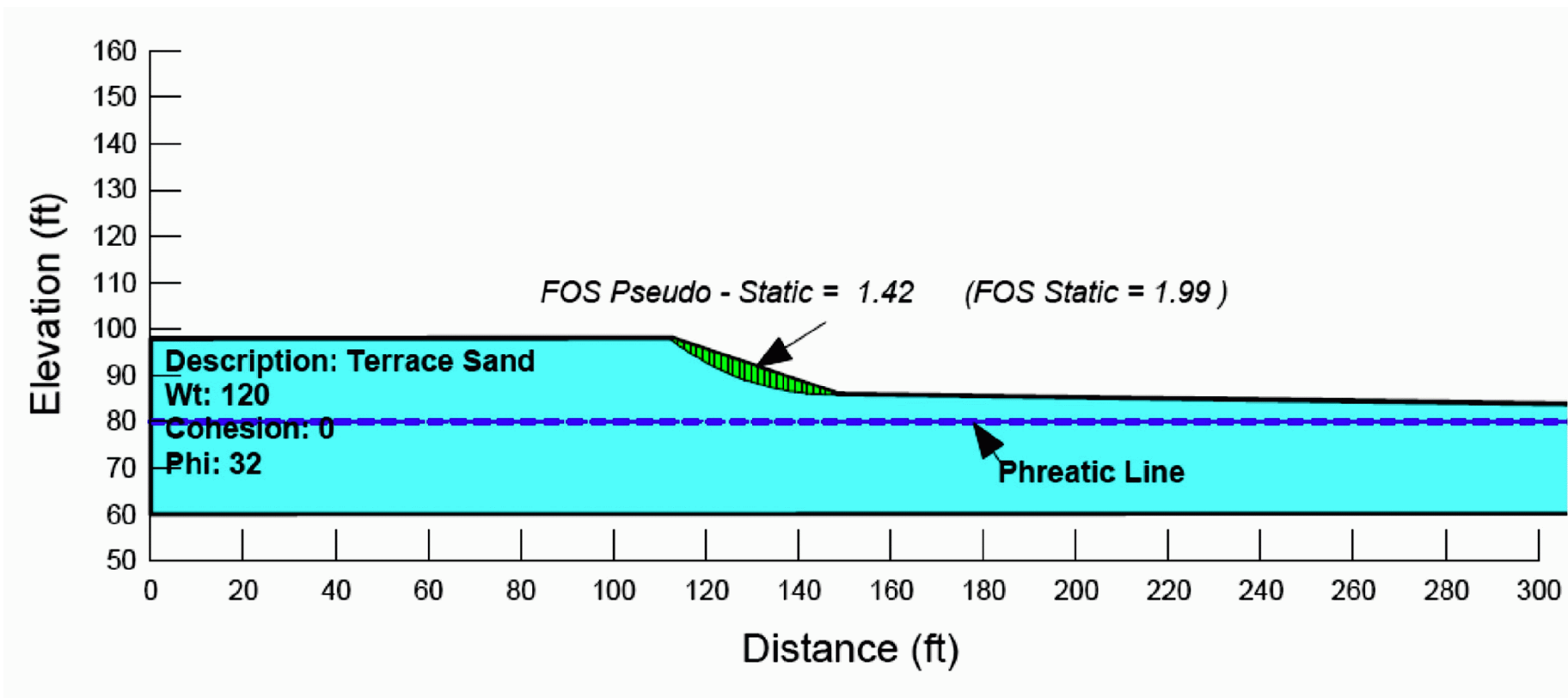


Figure 2.5-175—{Static and Pseudo-Static Stability Analyses of Slope Section E (Forced Deeper Surface)}

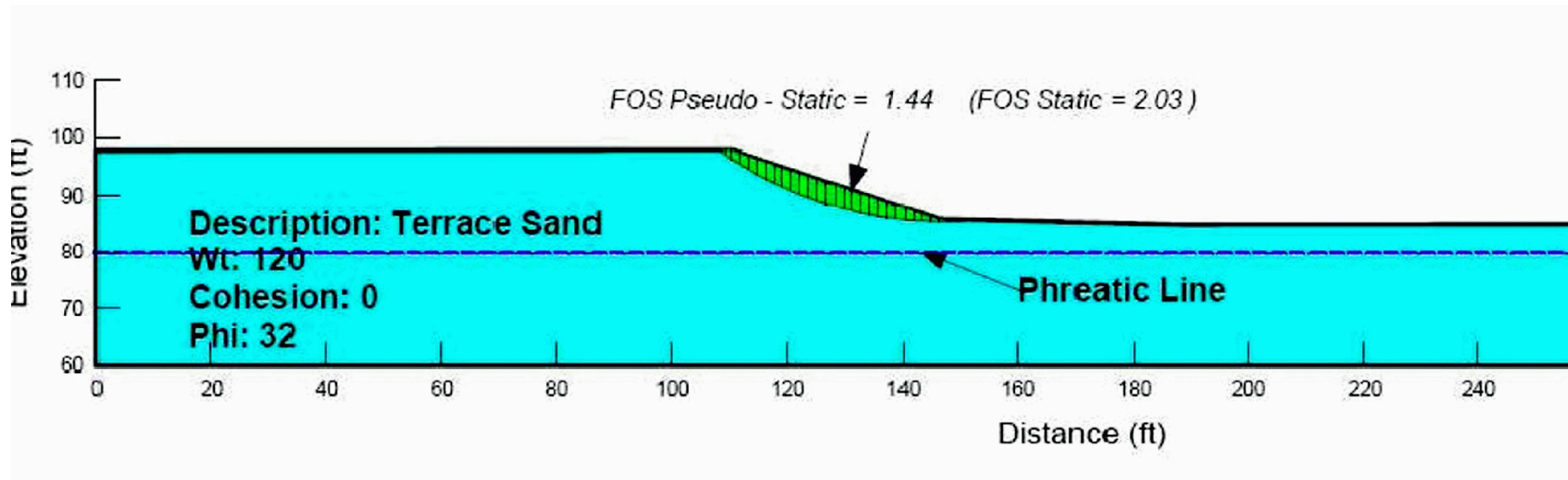


Figure 2.5-176—{Static and Pseudo-Static Stability Analyses of Slope Section F (Forced Deeper Surface)}

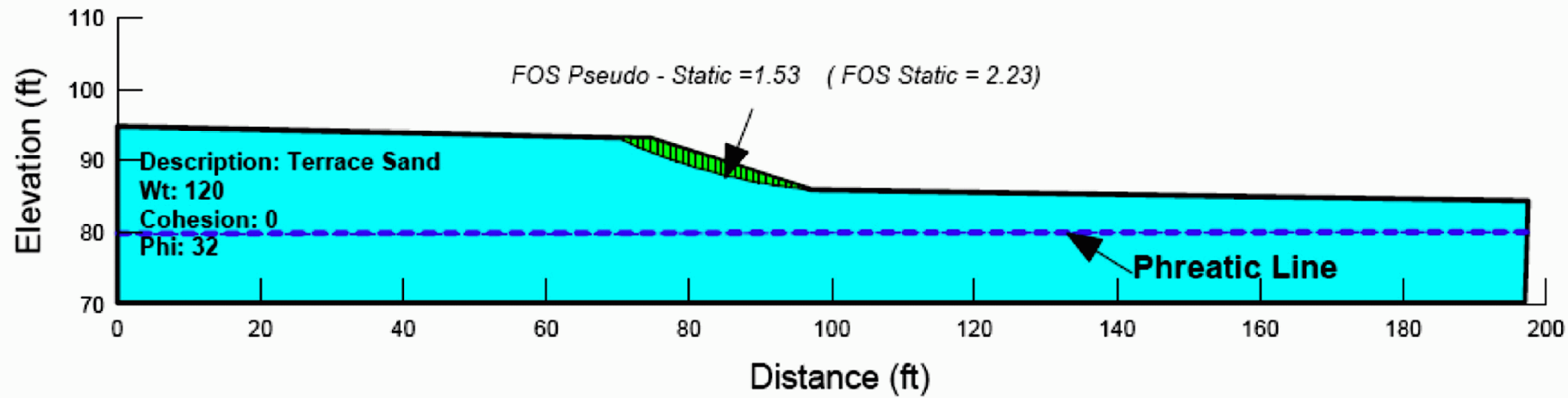


Figure 2.5-177—{Stability Analysis of Slope Section H}