

Photographic Documentation  
of  
Setting an NGS 3-D  
Geodetic Control Monument



Potsdam Airport, NY 1988

Set By Curt Smith, NGS  
Photos By Arnold Mason  
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Initial Site Selection



Digging the 43" deep hole; 12"- 14" diameter for the top 22" in depth, and 3"- 6" diameter for the bottom 21"  
(Note, Dirt removed with a wheelbarrow)



12" Diameter Hole



Mark Setting Truck and Equipment



Finishing 12" X 48" Hole  
(Note, Safe distance from runway)



Starting Stainless Steel Rod



Driving the SS Rod to Refusal



Cutting the SS Rod 3" Below Ground Level  
with Hydraulic Cutter



Rounding and Smoothing  
the Top of SS Rod with Grinder



Preparing 1" PVC Greased Filled ("Finned") Sleeve



Greased Sleeve in Place Over SS Rod



Backfilling Bottom 2 Feet of Hole with Washed Sand



Finished SS Rod and Sand in Place  
(Note, SS rod centered)



Stamping Station Designation





Gluing Logo Cap to 5" or 6" PVC Pipe



Preparing Hole For 5" or 6" PVC Pipe



Placing Bottom of 24" Long, 5" or 6" PVC Pipe Into the Sand



PVC Pipe Backfilled with Sand to Within 1" of Greased Sleeve



Concrete Mixed to Finish Hole  
Note, Area Kept Clean



Temporary Cover in Place to Keep  
Concrete Off Logo Cap



Backfilling Remainder of Hole  
with Concrete



“Shaking” PVC Pipe to Help Settle Concrete



Trowling Smooth Top of Concrete  
Note, No Concrete on top of Logo Cap



Finished Monumet, Cap Open  
Note: Very Neat Appearance, SS Rod Centered in PVC,  
PVC Centered in Concrete,  
Concrete Round (Not “Mushroom” Shaped),  
No Concrete on Logo Cap,  
No Concrete on the Ground



Finished Monument, Cap Closed



Storing Equipment, Site Clean-up