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

Potsdam Airport, NY 1988

Set By Curt Smith, NGS
Photos By Arnold Mason
Regional Party Chief, NYSDOT

Initial Site Selection

Digging a 48" Deep, 12" Diameter Hole
(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